CHINA.

IMPERIAL MARITIME CUSTOMS.

II.—SPECIAL SERIES: No. 2.

MEDICAL REPORTS,

FOR THE HALF-YEAR ENDED 30TH SEPTEMBER 1891.

42nd Issue.

PUBLISHED BY ORDER OF

The Inspector General of Customs.

SHANGHAI:
PUBLISHED AT THE STATISTICAL DEPARTMENT OF THE INSPECTORATE GENERAL OF CUSTOMS,
AND SOLD BY
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National Oceanic and Atmospheric Administration

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December 20, 2000

INSPECTOR GENERAL'S CIRCULAR No. 19 OF 1870.

INSPECTORATE GENERAL OF CUSTOMS,

PEKING, 31*st December* 1870.

SIR,

1.—IT has been suggested to me that it would be well to take advantage of the circumstances in which the Customs Establishment is placed, to procure information with regard to disease amongst foreigners and natives in China; and I have, in consequence, come to the resolution of publishing half-yearly in collected form all that may be obtainable. If carried out to the extent hoped for, the scheme may prove highly useful to the medical profession both in China and at home, and to the public generally. I therefore look with confidence to the co-operation of the Customs Medical Officer at your port, and rely on his assisting me in this matter by framing a half-yearly report containing the result of his observations at.....upon the local peculiarities of disease, and upon diseases rarely or never encountered out of China. The facts brought forward and the opinions expressed will be arranged and published either with or without the name of the physician responsible for them, just as he may desire.

2.—The suggestions of the Customs Medical Officers at the various ports as to the points which it would be well to have especially elucidated, will be of great value in the framing of a form which will save trouble to those members of the medical profession, whether connected with the Customs or not, who will join in carrying out the plan proposed. Meanwhile I would particularly invite attention to—

a.—The general health of.....during the period reported on; the death rate amongst foreigners; and, as far as possible, a classification of the causes of death.

b.—Diseases prevalent at.....

c.—General type of disease; peculiarities and complications encountered; special treatment demanded.

d.—Relation of disease to { Season. / Alteration in local conditions—such as drainage, etc. / Alteration in climatic conditions.

e.—Peculiar diseases; especially leprosy.

f.—Epidemics { Absence or presence. / Causes. / Course and treatment. / Fatality.

Other points, of a general or special kind, will naturally suggest themselves to medical men; what I have above called attention to will serve to fix the general scope of the undertaking. I have committed to Dr. ALEX. JAMIESON, of Shanghai, the charge of arranging the Reports for publication, so that they may be made available in a convenient form.

3.—Considering the number of places at which the Customs Inspectorate has established offices, the thousands of miles north and south and east and west over which these offices are scattered, the varieties of climate, and the peculiar conditions to which, under such different circumstances, life and health are subjected, I believe the Inspectorate, aided by its Medical Officers, can do good service in the general interest in the direction indicated; and, as already stated, I rely with confidence on the support and assistance of the Medical Officer at each port in the furtherance and perfecting of this scheme. You will hand a copy of this Circular to Dr. ....., and request him, in my name, to hand to you in future, for transmission to myself, half-yearly Reports of the kind required, for the half-years ending 31st March and 30th September—that is, for the Winter and Summer seasons.

4.— * * * * *

I am, etc.,

(Signed) ROBERT HART,
I. G.

THE COMMISSIONERS OF CUSTOMS,—*Newchwang*, *Tientsin*, *Chefoo*, *Hankow*, *Kiukiang*, *Chinkiang*, *Shanghai*, *Ningpo*, *Foochow*, *Tamsui*, *Tainan*, *Amoy*, *Swatow*, and *Canton*.

SHANGHAI, 15*th July* 1894.

SIR,

IN accordance with the directions of your Despatch No. 6 *A* (Returns Series) of the 24th June 1871, I now forward to the Statistical Department of the Inspectorate General of Customs, the following documents:—

Report on the Health of Wuhu for the two and a half years ended 30th September 1891, pp. 21–26.

Report on the Health of Seoul (Corea) for the year ended 30th June 1891, pp. 7–9.

Report on the Health of Swatow for the year ended 30th September 1891, pp. 4–6.

Report on the Health of Chemulpo (Corea) for the half-year ended 30th April 1891, p. 10.

Report on the Health of Kiukiang, pp. 1–3;

Report on the Health of Ichang, pp. 11, 12;

Report on the Health of Pakhoi, pp. 17, 18;

Report on the Health of Wenchow, pp. 19, 20;

Report on the Health of Shanghai, pp. 43–47; each of these referring to the half-year ended 30th September 1891.

Medical Report on Chungking, pp. 13–16.

Abdominal Hysterectomy in Japan, pp. 27–33.

The Influenza Epidemics in Foochow, 34–36.

On Mr. J. T. ROE's Theory that Influenza is Endemic in China, pp. 37–42.

I have the honour to be,

SIR,

Your obedient Servant,

R. ALEX. JAMIESON.

THE INSPECTOR GENERAL OF CUSTOMS,

PEKING.

The Contributors to this Volume are:—

GEORGE R. UNDERWOOD, M.B., C.M., L.R.C.S.Ed.	Kiukiang.
HENRY LAYNG, M.R.C.S., L.R.C.P.	Swatow.
J. WILES, M.R.C.S., L.S.A.	Seoul, Corea.
E. B. LANDIS, M.D.	Chemulpo, Corea.
E. A. ALDRIDGE, L.M.&L.R.C.P.I., M.R.C.S.	Ichang.
JAMES H. MCCARTNEY, M.D.	Chungking.
A. SHARP DEANE, L.R.C.P.I., L.R.C.S.I.	Pakhoi.
J. H. LOWRY, L.R.C.P.Ed., L.R.C.S.Ed.	Wenchow.
ROBERT H. COX, L.R.C.P.I., L.R.C.S.I.	Wuhu.
WALLACE TAYLOR, M.D.	Osaka, Japan.
T. B. ADAM, M.D., C.M.	Foochow.
JAMES CANTLIE, M.A., M.B., F.R.C.S.	Hongkong.
R. ALEX. JAMIESON, M.A., M.D., M.R.C.P.	Shanghai.

For everything enclosed within square brackets [ ], the compiler is responsible.

DR. GEORGE R. UNDERWOOD'S REPORT ON THE HEALTH OF KIUKIANG

For the Half-year ended 30th September 1891.

WHILE there have been several fatal cases, there has not been more than the ordinary amount of sickness in the Concession during the past six months.

One foreigner, who for years had been accustomed to smoke opium to a moderate degree, died from chronic albuminuria, with lung and heart complications. He had been the subject of enthetic disease, had not always been temperate, and had frequently suffered from acid dyspepsia; so that the influence of the opium habit in directly causing the albuminuria cannot be determined.

A second patient, an elderly primipara, died as the result of septic poisoning on the seventeenth day after parturition. The symptoms first showed in a mild form on the fourth day, and on the sixteenth, when—the fever having all but gone and the general condition much improved—I thought the worst was over, serious signs of cardiac failure became apparent, and the end soon followed.

One other death was from a gun-shot wound. Late one afternoon three men of the Customs out-door staff were walking on the city wall, one carrying a fowling-piece being a little behind the other two. As he was bringing the gun to his shoulder to fire at a passing bird, the trigger caught some way or other, and was pulled, and the shot entered the neck of one of the men in front at the level of the first and second cervical vertebræ, and half an inch to the right of the spinous processes. So close was the range that the skin round the opening (which was 1 inch in diameter) was stained by gunpowder over an area of $1\frac{1}{2}$ inch all round. The right halves of the atlas and axis were smashed, the cord was cut through, and the track passing forwards, upwards, and slightly outwards, the internal carotid was severed and the important nerves of the region torn. Pellets appeared under the skin at the right inferior orbital margin, the floor of the orbit being in fragments.

Another patient, æt. 24, died from confluent small-pox at Lungping, 20 miles from this place. He had strong objections to vaccination, and declined to have it done. Could he have foreseen the anxiety and trouble which those friends who so devotedly nursed him had to endure, his anti-vaccination views (which in this country imply a decided want of consideration for others) would have been willingly put aside.

Among the Chinese the summer was healthy, though in some villages north of the river, and in one of the camps outside the city, a continued fever prevailed, with a considerable mortality. In Kiukiang itself the season has been good, and I have not heard of a single case of cholera in the whole district. The number of patients coming to the dispensary diminished by more than half, owing to the disturbed state of the Yangtze valley. Of late, in spite of renewed alarms, the attendance has increased, and at present the hospital is full.

The following case is interesting, as pointing out a method of testing for opium not generally practised in Western countries and not even named in the text-books:—

Two Cantonese, in good circumstances, one a comprador in a foreign hong and the other a writer in the Maritime Customs service, were living in adjoining houses in an alley behind the China Merchants' hong. The wives of the two quarrelled, their amahs joined in, and finally the husbands got involved in

the difficulty. It seems that the comprador's wife made some defamatory statement regarding the writer's amah, in consequence of which the latter lost her situation. She promptly went to the comprador's house, and explaining that as they had taken away her good name and means of earning a living they must now keep her, she took up her abode as a member of the household. This was borne for two or three days, and then the comprador gave the woman $30 to get rid of her. She went off with the money to her husband's house, when she was accused of getting the dollars by illegitimate ways, and told by her husband to go away for good. In the evening of the same day she returned to Kiukiang, bought on the way a quantity of extract of opium, swallowed it, went to the comprador's house, and took up her abode there as before. There they saw nothing unusual in her appearance; but towards bedtime she was noticed to be very drowsy. She became gradually worse, and at 2 A.M. I was called, and found her semi-comatose. She was carried to the hospital and measures taken to bring her round. All was of no avail, however, and she died at 7 A.M. The friends did not wish to remove the body, as their chances of blackmailing the comprador would thereby have been much diminished. A report got abroad, too, that the woman had not died of opium-poisoning, but had been beaten to death; and to give no chance of raising a disturbance, the native authorities were called upon to deal with the matter in their own way. The city magistrate accordingly sent his myrmidons to make the necessary preparations for holding an inquiry as to the cause of death. In the courtyard of the hospital they stuck four bamboo rods in the ground, 6 feet apart, and on these, at the height of 5 feet, fastened a rush mat, to protect the body. 20 yards to windward of this, and under a roof, a chair for the magistrate was placed, with his writing table in front. Between the chair and the body were several rows of lighted joss sticks, with a view apparently to masking the smell. The magistrate arrived soon after the preliminaries had been got ready, saw the corpse in the room in which death had taken place, and ordered it to be carried out and placed on boards under the mat. He then took his chair, plugged his nostrils with the dried leaves of an artemisia, and, pen in hand, was ready. His attendants and followers followed his example, and plugged their nostrils with whatever came most handy. The woman's husband was then brought forward, his evidence taken, and all signs of emotion on his part sternly forbidden, his intimate relationship with a turtle being very energetically pointed out to him from the bench. Much interest was taken in the proceedings, and roofs and walls in the neighbourhood were crowded with onlookers. The body of the deceased was now ordered to be stripped for the inspection of the official viewer. He examined it in detailed order, as prescribed, and, fortunately for the comprador, found no mark of any blow, recent or otherwise. The testing for opium then began. The mouth, nostrils, vagina and rectum were plugged with wet paper. Two probes of untarnished silver, about $\frac{1}{8}$ inch square and 12 inches long—the one end being pointed and the other turned to a ring,—were brought forward. The first was passed in by the mouth downwards as far as it would go, and the second by the rectum up to the ring. The face, sides of the head, thorax and abdomen were wrapped with sheets of moistened paper. The body was then completely covered with an old cotton quilt, and on this a second was placed, both being closely tucked in all round. Four candles were stuck in the ground, near the feet, and lighted, one of them being marked at a point which would be reached in an hour and a half from the time of lighting. Boiling water was now brought in buckets and poured over the covered corpse, kettleful after kettleful, as quickly as it could be got from a hot-water shop close by. Meantime the mother of the suicide had come, and as she was more demonstrative than the magistrate desired, she was made to squat on the ground and be silent. The father also came, and knelt in the usual way before the magistrate, who listened to him for a little, and then ordered him to sit down beside his wife and be quiet. It was a hot afternoon—over 95° in the shade,—and doubtless trying to the temper of even a Chinese mandarin. Meanwhile the pouring of water went on steadily. Occasionally his honour would enliven the waiting by some acrid remarks on the behaviour of his attendants, in a tone which indicated that they were meant for general edification. After an hour and a half the pouring of water was stopped, the face uncovered, and the probe passed in by the mouth withdrawn. It was not tarnished. Pouring on hot water was resumed; and in another quarter of an hour

it was again withdrawn, and found to be blackened. The rest of the body was then uncovered, and was seen to be much swollen, especially the abdomen, from the development of gases during the hastened decomposition produced by the continued application of heat. The probe in the rectum was also found to be tarnished. This was held to be unmistakable proof of the presence of opium. As to whether the blackening was due to the deposit of opium on the surface—the silver acting as a loadstone,—no opinion was given, but I am inclined to think that such was the mandarin's belief. The body was now placed in a coffin and taken away for burial.

A very unusual accident—rupture of hæmorrhoids from a kick,—which might have led to a disturbance, happened here a few days after the last-mentioned case.

An auction was about to commence at the house of the foreign inspector of police, when a native in white clothes was noticed to appropriate a silk handkerchief from the things to be sold. The inspector caught him and accused him of the theft, and on his denying, opened his coat and found the missing article. He took him by the queue, ran him to the gate of the yard, and gave him a parting touch with the tip of his boot. The man went away, and a few minutes afterwards I was called to a room occupied by a native guard at the T'ien-chu-t'ang gate, to see a military mandarin who was supposed to be dying from injuries received at the hands of the foreign inspector of police. I found his trousers saturated with blood. Being a petty officer, the sight of the blood caused much excitement among the soldiers, some of whom had gone for a superior. On examination, it was found that the man had hæmorrhoids, that one of these had given way, and that bleeding had already stopped, though he had lost a large quantity of blood. By way of treatment, his blood-stained garments were sent to the wash, being replaced by blue ones, he himself put in bed in the hospital for the night, and the incident was at an end. He said little, knowing that the proofs of his theft were too strong. Had it been otherwise we should certainly have had trouble with his fellows.

I am indebted to the Harbour Master for the following abstract of meteorological observations:—

METEOROLOGICAL TABLE, April to September 1891.

MONTH.	THERMOMETER.				RAINFALL.	
	Maximum.		Minimum.			
	Highest.	Lowest.	Highest.	Lowest.	No. of Hours.	Quantity.
	°	°	°	°		*Inches*
April	82	53	70	44	85	6.53
May	94	64	76	52	54	3.57
June	96	75	81	66	36	5.10
July	100	77	84	71	58	6.99
August	102	79	84	73	26	3.26
September	94	71	80	59	4	0.46

DR. HENRY LAYNG'S REPORT ON THE HEALTH OF SWATOW

For the Year ended 30th September 1891.

METEOROLOGICAL TABLE, October 1890 to September 1891.

MONTH.	WIND.					BAROMETER.				THERMOMETER.						WEATHER.		
	No. of Days N. to E.	No. of Days E. to S.	No. of Days S. to W.	No. of Days W. to N.	No. of Days Calm.	Highest by Day.	Lowest by Day.	Highest by Night.	Lowest by Night.	Highest by Day.	Lowest by Day.	Highest by Night.	Lowest by Night.	Averages. Wet Bulb.	Averages. Dry Bulb.	No. of Days Rain.	Rainfall.	No. of Days Fog.
1890.	*D. h.*	*D. h.*	*D. h.*	*D. h.*	*D. h.*	*Inches*	*Inches*	*Inches*	*Inches*	°	°	°	°	°	°	*D. h.*	*Inch.*	*D. h.*
October	16 18	11 0	...	2 6	1 0	30.32	29.81	30.40	29.85	83.0	68.0	82.0	65.0	68.6	73.3	0 8	1.77	0 12
November	9 6	12 18	0 12	3 6	4 6	30.37	30.08	30.40	30.17	75.0	61.0	76.0	61.0	63.0	67.2	0 18	0.29	0 16
December	13 18	12 6	0 12	1 18	2 18	30.38	29.99	30.45	30.05	74.0	55.0	70.0	57.0	55.2	64.8	1 14	2.59	1 0
1891.																		
January	26 12	1 0	...	0 12	3 0	30.45	30.10	30.45	30.10	76.0	52.0	67.0	41.0	58.0	60.0	0 2	0.16	0 1
February	13 0	9 12	1 18	0 12	3 6	30.55	29.97	30.56	29.97	84.0	47.5	71.5	42.0	55.0	58.0	2 3	1.03	1 0
March	12 6	13 12	0 6	1 12	3 12	30.45	29.88	30.38	29.92	75.0	50.5	65.0	46.0	56.5	59.5	3 2	5.71	2 6
April	8 6	14 0	2 18	1 6	3 18	30.34	29.90	30.31	29.90	84.0	57.0	76.0	50.0	64.8	67.2	2 12	3.58	0 22
May	5 6	12 18	9 6	0 18	3 0	30.27	29.82	30.25	29.85	91.0	65.0	83.0	59.0	72.8	75.1	4 1¼	20.96	0 7¼
June	2 18	14 6	6 12	1 18	4 18	30.04	29.60	30.02	29.67	95.0	75.0	85.0	69.0	78.2	79.9	4 4	11.11	0 6
July	2 12	13 6	12 12	2 0	0 18	30.03	29.56	30.05	29.58	93.5	74.0	85.0	73.0	79.6	82.8	3 5	15.14	...
August	4 18	13 0	7 18	1 18	3 18	30.09	29.67	30.09	29.71	96.0	73.0	89.0	73.0	79.4	83.4	2 2	8.79	...
September	10 18	9 6	2 18	4 0	3 6	30.16	29.08	30.10	29.69	94.0	70.0	85.0	70.0	77.7	82.0	1 10¼	6.51	...

For the meteorological observations I am indebted to the kindness of Tidesurveyor Mr. J. H. C. GÜNTHER.

The weather during the winter months calls for no special remark. The summer was exceptionally cool and long, the heat continuing far into the autumn. Excessive rain fell during May, June and July, the rainfall registered during these months being 47.21 inches. On 23rd September the port was visited by a severe typhoon, the barometer falling as low as 29.08.

The 12 months under consideration do not admit of a favourable report, the number of deaths among foreigners exceeding that of any previous year. From all accounts, the death rate has been equally high among the natives; in the village of Kakchio, situated on the south

side of the river, at the back of the foreign Settlement, where some 200 live, I can speak from personal knowledge that they have suffered worse than the foreigners.

The chief causes of sickness were:—epidemic influenza, in the spring; gastro-intestinal catarrh, in the early summer months; and epidemic cholera, in July, August and the early part of September. Measles of a very mild nature was prevalent among the natives during the summer months; some few children of foreigners were attacked.

Cases of malarial fevers were not more numerous than usual.

In all, seven deaths occurred; the causes were as follows, one from each:—

Facial erysipelas in a paraplegic.
Chronic bronchitis with morbus cordis.
Typhoid fever.
Diabetic coma.
Epidemic cholera.
Acute nephritis with acute hepatitis.
Aneurism of the descending portion of the arch of the aorta.

Epidemic Influenza.

During the spring about 20 foreigners were attacked, and it is noteworthy that in the epidemic of last year all of these escaped. The cases were, on the whole, less severe than those of 1890, not one being followed by any serious sickness. At the lighthouses on Sugar Loaf and South Cape the entire foreign and native staff were attacked within a few days of each other. Among the native population the epidemic would appear to have been less widespread; but a greater number of cases of subsequent pneumonia applied for treatment at the mission hospital.

Gastro-intestinal Catarrh.

During the early summer months this was very prevalent, few persons escaping without a slight attack. These cases were all attended with vomiting or nausea, diarrhœa and flatulence, the stools being always deficient in bile. In all cases bile was found in the urine, and in three or four there was distinct jaundice. Usual duration was from two to four days, occasionally prolonged to from seven to ten days. 2 grains of euonymin every other night with a carminative rhubarb mixture, with careful diet, proved the most successful treatment. Prolonged diarrhœa, which only yielded after some weeks of an entirely milk diet, followed in two cases.

Epidemic Cholera.

In July, August and the early part of September cholera raged among the natives in the districts round Swatow. The epidemic was much less severe in Swatow itself than in the outlying large towns and villages. For the first time since foreigners have lived here three residents were attacked; of these, two recovered and one died. In the early weeks of the

epidemic death frequently occurred in a few hours. Many reports of death in a few minutes and of men falling down dead reached me. Towards the end the cases were much less severe, and were apparently often cured by drugs. During the cholera season many cases of diarrhœa were under treatment.

At the Seamen's Hospital two cases of cholera landed from steamers were admitted; both recovered.

Five cases of acute dysentery were treated with small doses of Epsom salts, with very satisfactory results. The drug was administered in $\frac{1}{2}$-drachm doses every hour or two, for a period extending over from 24 to 72 hours. In all the cases decided improvement followed within 12 hours. The straining and pain first subsided, and the stools gradually became yellow and feculent. Ipecacuanha was given in cases side by side with these, and in one, in which it completely failed, quick improvement followed treatment with Epsom salts. The nausea and vomiting that frequently follow the administration of ipecacuanha are most distressing to the patient, and often much dreaded; these, together with the subsequent depression, are all avoided by the use of Epsom salts.

There were nine births during the year.

DR. J. WILES'S REPORT ON THE HEALTH OF SEOUL (COREA)

For the Year ended 30th June 1891.

HAVING been resident in Corea for a few months only, my present Report must consist of a short *résumé* of the principal points of sanitary interest which I have noticed during the period that I have been here.

Last summer seems to have been exceptionally trying to Europeans at Seoul. There was an unusual amount of malarial fever. Four deaths occurred—the population having been about 80, giving a death rate of 5 per cent. The causes of death were—

Abscess of liver	1	Pneumonia	1
Typhoid fever	1	Acute dysentery . . .	1 (young child).

The prevalent diseases are dependent upon malarial influences. Ague is the form most commonly met with among the inhabitants of Corea. Generally speaking, it is of mild type and readily yields to treatment. It seems to exist at all seasons of the year, and especially in the spring months.

I have, so far, seen but few cases of typhoid fever in Seoul, as for this disease the people seem to prefer the treatment, such as it is, of Corean doctors. Two cases occurred among the French mission, one of which was fatal. One was traceable to the use of contaminated water.

A considerable number of cases of leprosy come for treatment at the hospital. Most of these are from distant country villages, and it would seem that in some places in Corea the disease is very prevalent; but from my personal observation it is rare in Seoul.

It would be interesting to know how long syphilis has existed to its present extent in Corea, considering how little intercourse the inhabitants have had with other countries. Its ravages are enormous, men, women and children of all classes suffering from its effects; and if it continues unchecked, the population must deteriorate in health and strength. As it is, its evil effects upon the young children are most marked. One curious feature about its prevalence is the total lack of any feeling like shame exhibited by Coreans suffering from it. They appear to look upon it in exactly the same light that a Western would as regards an attack of measles or scarlet fever.

Ophthalmia, next to syphilis, is the disease of Corea. It is very like that met with in Egypt, and its ravages are nearly as great. Its cause is also the same—filth and contagion,—and it will be a long time before any efficient measures can be taken to prevent it. The number of children who are brought for treatment after the eyes have been quite destroyed by it is very large. In no single case that I have seen has any attempt been made to lessen its effects by

washing or removing the discharge from the eyes. In fact, the use of water is considered as generally deleterious to children.

Seoul has fortunately escaped any epidemic during the past year. In September cholera appeared in Fusan, but, from all I can learn, not in a very virulent form. One or two cases occurred at Chemulpo and also at Seoul; but the disease did not spread among the people, which was rather remarkable, considering the insanitary condition of the place. Perhaps its stoppage depended upon its reaching Seoul late in the year, when cooler.

Seoul has been unusually free from small-pox during the past year. It is always present, and, in fact, inoculation of this disease is the usual practice. Vaccination has made but slow progress among Coreans. It is difficult to get the people to bring their children to be vaccinated in sufficient numbers to keep up a supply of vaccine. Some of the Corean doctors have, however, begun to vaccinate; so that it is getting to be known. The destruction caused among children by inoculation is dreadful, and, in consequence of the contagium being applied to the nostrils, it would seem to affect their faces and produce blindness and closure of the nares. The number of children who are made blind from this is very large, and it is much to be hoped that vaccination will soon become more general.

Judging from my short experience of Corea, I consider that the climate is a very good one, and if only sanitation was a little attended to, this country would be very suitable as a sanitarium for those who suffer from the ill effects of residence in China. The climate is dry, with the exception of two months in the year, viz., July and August, and the number of bright, sunny days, even in winter, is remarkable. The winters are cold, but short, and even in the coldest weather constant sunshine makes the days pleasant.

Tuberculous disease of lungs is not common, and the children have a healthy appearance, in spite of the horribly insanitary conditions in which they are brought up.

The country, from what I have seen of it, is most fertile, and were a little attention given to sanitary matters and to the making of roads, etc., Corea seems to me to have the means of becoming not only a healthy country but also a rich one.

The estimated number of foreign residents in Corea is as follows:—

Americans	55
French	28
Germans	26
British	23
Russians	8
Italians	3
Spaniards	1
Austrians	3
Portuguese	1
Danes	1
TOTAL	149
Japanese	7,913
Chinese	1,234

In consequence of the small number of foreigners resident in Corea, little has been done to help to improve the habits of the natives as regards their insanitary surroundings and the care of the sick; but they already appreciate the dispensaries and small hospitals which have been working for the last few years, and these, it is to be hoped, may be able to extend their operations, when funds permit, so as to establish a good hospital for the treatment of disease and also for teaching medical science to Coreans and training them as practitioners.

DR. E. B. LANDIS'S REPORT ON THE HEALTH OF CHEMULPO (JENCHUAN), COREA,

For the Half-year ended 30th April 1891.

DURING the half-year ending with April there were very few cases of sickness among Europeans.

The winter was mild, more so than for many years previously, the climate in this vicinity being unusually beneficial to persons suffering from asthmatic diseases.

There has been one case of varioloid, the patient, a seaman on an American man-of-war, having contracted the disease in Japan. The attack, however, ran a simple, uncomplicated course.

Pulmonary phthisis is prevalent among the Japanese residents, especially among those coming from the southern provinces, as the climate is usually severe in winter. The Chinese residents suffer from rheumatic affections, and it is very rare to see a man who has not at one time or another had a rheumatic attack. However, these attacks are seldom fatal.

The native town is in a deplorable condition. There is not the least attempt made at drainage, and diseases due to filth and insanitary surroundings are prevalent. The European Concession is being drained and improved from a sanitary point of view. The supply of drinking-water is especially unsatisfactory, there being only one or two wells in the Settlement which are fit to be used.

The diseases most frequently observed among the natives during the winter season were syphilis, malaria, diseases due to filth, conjunctivitis and skin affections. Conjunctivitis is universal, and is frequently neglected until sloughing of the cornea takes place—or, at least, the physician does not see the cases until they reach this stage. Ear affections are not infrequent. At least one-half of the patients who come to be treated for ear troubles have perforated tympanic membrane.

DR. E. A. ALDRIDGE'S REPORT ON THE HEALTH OF ICHANG

For the Half-year ended 30th September 1891.

THE following abstract is from the meteorological observations taken at the Custom House, Ichang (latitude, 30° 14′ 25″ N.; longitude, 111° 18′ 34″ E.):—

METEOROLOGICAL TABLE, April to September 1891.

MONTH.	THERMOMETER.				BAROMETER.		RAINFALL.	
	Highest.	Lowest.	Average Highest.	Average Lowest.	Highest.	Lowest.	No. of Days.	Quantity.
	° *F.*	° *F.*	° *F.*	° *F.*	*Inches*	*Inches*		*Inches*
April	92.0	42.5	72.5	52.6	30.32	29.56	10	5.12
May	104.5	43.0	88.6	62.1	30.15	29.49	6	3.30
June	102.0	62.0	92.9	71.8	29.77	29.43	5	3.39
July	106.0	67.0	95.9	76.3	29.70	29.36	14	5.91
August	101.5	69.0	92.3	73.9	29.88	29.63	16	10.88
September	102.0	61.0	93.3	69.3	30.11	29.70	2	0.38

As will be seen by looking at the above record, the readings of the thermometer were exceptionally high. The great heat began early in May and lasted well into September. The average temperature was about 80° F., a record of about 30° higher than that of the previous six months. The rainfall was low, it being for the six months 28.98 inches only, falling in 273 hours, making for the last 12 months a total of only 34.29 inches, which fell in 448 hours.

As regards the health of Ichang, the great heat and dryness brought about a tolerably healthy season, malarial fevers and dysentery being noticeably less prevalent, which was partly due, no doubt, to the fact that the absence of water prevented any rice crop in the low fields at the back of the city, while the streets and mud floorings of the houses were also less damp. The failure of the rice crop naturally caused an uneasy feeling among the peasantry.

The lot of a European stationed here has not been a happy one. The great heat, sleepless nights and, in some cases, severe illness, the feeling, for many weeks, of living, so to speak, at the mouth of a volcano, never knowing when the threatened day was to arrive, and, lastly, the riot of the 2nd September, have occasioned much suffering and mental anxiety.

Among Europeans the most serious maladies were one case of small-pox and three of typhoid fever, all making good recoveries. For this result, in my own case when suffering from

typhoid, I am indebted to the untiring attention of Dr. PIRIE, of the Church of Scotland Mission. Two attacks of dysentery were treated in one who had had the same complaint in other ports.

In May there was a fever prevalent among the natives, causing some deaths, which seemed, from the character of the rash, head symptoms and duration of fever, greatly to resemble typhus fever. It was declared to be very contagious; but of that I am dubious. One case of the disease was seen, ending in recovery, and none of the other occupants of the mud hovel were attacked, nor did any of the neighbours suffer.

All notes of cases attended were unfortunately destroyed in the late riot.

DR. JAMES H. McCARTNEY'S MEDICAL REPORT ON CHUNGKING.

CHUNGKING, commercially the most important city west of Hankow, is built on a stony elevation at the junction of the Min with the Yangtze. I do not think that there is another city in the Empire better situated as regards sanitary possibilities than Chungking. It occupies an elevation from 50 to 200 feet above the river level, and is traversed by numerous ravines which carry the water and a large part of the filth of the streets into the stream. The city has a population estimated at from 250,000 to 350,000, the larger part of which lives within the walls. The water supply is obtained entirely from the river. Nature seems to have favoured Chungking in this respect, by causing the main current to flow along the shore on both sides of the city, so that nowhere along either bank can still water be found. The graves at the back of the city are, for the most part, lower than the city levels, and no drainage from them approaches us.

There are few rice fields within 2 or 3 miles with stagnant water. The people take life more easily than those farther down the river. The streets are much the same as in Hankow, although the buildings are, on the average, better. In many places the streets are very filthy, but no worse than in other Chinese cities. Living in Chungking is fairly good. The meat market is improving very rapidly since the Customs came here; good beef, mutton and fowl can be obtained at almost all times.

The climate is always damp, but especially so during the summer months, when, from the heat and moisture, the atmosphere is very oppressive. From November to February there are not many bright days, and the sun is seldom seen for an hour at a time. The location of both the in-door and out-door staff of the Customs is all that could be desired from a sanitary point of view. The members of the in-door staff occupy large and airy apartments in a native building on one of the highest points within the city. The out-door staff is quartered in well-ventilated apartments adjoining a temple on the hillside above the Customs office, more than 100 feet above low-water mark.

The health of the Customs staff, both in-door and out-door, has been excellent, indigestion and a few minor ailments alone demanding treatment.

The greater part of my observations have been taken from practice among natives while conducting the dispensary and hospital work of the American Methodist Episcopal Mission. A dispensary was opened on the 1st March 1891, and during the ensuing six months more than 2,000 patients presented themselves. A hospital with 100 beds has lately been established, which will supply a valuable field for observation.

The great majority of the patients seen suffer from respiratory and skin diseases. Among respiratory diseases, emphysema takes the lead, in both chronic and acute forms, old and young, males and females, being equally subject to it. Bronchitis, both acute and chronic, comes next.

I have met with many cases of phthisis in various stages, for which tonics with creosote in mixture and inhalation appeared to be the most suitable treatment. Pneumonia is not common; I have seen but one case in nine months.

The most frequent skin diseases, here as elsewhere in China, are itch and the various forms of eczema.

Tinea circinata, seborrhœa and lupus are very frequently seen. Treatment of lupus by the sharp spoon has proved successful in many instances.

I have seen but one case of leprosy, and that happened to come to my notice while on a journey about 100 miles from Chungking. I am told that there is a village not many miles away where there are a large number of lepers.

Although I have heard that diphtheria and small-pox are the most prevalent contagious diseases, I have not seen any cases of either. Typhoid fever is not known—due, no doubt, to the good water supply and the drainage. The only case of typhus that I have seen or heard of was that of a missionary, who came to Chungking from down the river.

The different forms of malaria are common. There is a type which the natives call *han-ping* (寒病), resembling pernicious intermittent, presenting all its varieties, having the same duration, and yielding to the same treatment. This fever has been the cause of a large mortality among Chinese in and around the city since January 1891. Measles are common among children during the spring and autumn.

I have met with one case of hydrophobia:—

The patient was a woman of middle age, who had been bitten by a rabid dog about 30 days previous. The wound had healed, but the blue scar presented an inflamed appearance. She had been in spasms for nearly two days, and as I had no place in which to confine her, I did not undertake any treatment.

Venereal diseases, both in males and females, are frequently encountered, although every means of deception is adopted by the sufferers.

The diseases of women treated have been endometritis, amenorrhœa, menorrhagia and metrorrhagia, the women submitting very reluctantly to examination.

I have met with one case of ovarian tumour and one case of carcinoma of the cervix.

Four cases of labour among native women were attended:—

1°. A lady passing through the city, who had been in labour for several days. On reaching the house I found her in a very weak condition from loss of blood; the head of the child was already born. To deliver was but the work of a moment, as the child had been dead several days. After attending to the mother I left, promising to return if my services were needed. Two weeks later I was called, when I found the rectum prolapsed through the vagina and the walls necrosed. I clipped off the necrosed tissue and dressed antiseptically, and attended to the woman for a week, when she died from exhaustion, three or four large bed-sores having formed.

2°. A young married lady, 16 years old. Had been in labour for several days; had passed no urine for 48 hours. I drew off the urine, and found the head presenting at the superior strait. I delivered the woman by forceps of a dead child, but heard no more about the case.

3°. Multipara. Found the woman faint from loss of blood, brought about by the midwives attempting to crush the head of the child. Before I could do anything the woman died undelivered.

4°. Primipara; in labour 24 hours. On making an examination, found the left shoulder presenting. Applied forceps and delivered a dead child. The mother did well.

The people show a surprising readiness to submit to surgical treatment, so that I have performed over 250 major and minor operations.

Resection of the Upper Jaw.—Epithelioma of a year's standing, in a woman. The case did well at first, the parts all healing by first intention, with the exception of one spot, which would not heal. This place was cauterised with chloride of zinc; but after a month it was evident that the growth was recurring. I advised a second removal, but the friends would not consent. The case passed out of my hands and I heard no more of it.

After this there were two resections of the lower jaw in men, both for epithelioma. In one case the growth involved the inside of the cheek, which made removal difficult.

In two cases, one in a man and the other in a woman, nature was attempting resection of the lower jaw. In each a fistulous opening communicated with the outside, through which pieces of bone were from time to time discharged. After aiding nature by the removal of the dead bone, the fistulæ soon healed.

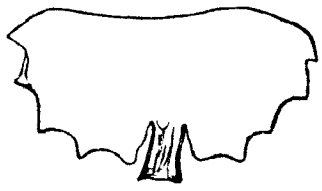
Out of three excisions of the knee, I was able to obtain the subsequent history of two. In one of these there will be considerable motion.

A few amputations of fingers and toes, as well as excisions of non-malignant tumours, have to be added to the record.

In one case enterotomy was done, but was followed by death:—

A female, 4 months old, with the following history. The umbilicus would not heal, and in order to make it do so a native doctor resorted to plasters and, finally, to the knife; but during his operation he cut too deep, and let out the intestines. This so frightened him that he did not wait to see the extent of the injury, but forthwith left the city. I was called eight hours after the accident, and found 4 or 5 feet of the intestines out on the abdomen and covered with a dirty blue rag. The bowels were greatly swollen, inflamed, and distended with gas, and the child was unconscious. There was a longitudinal cut in the gut, 3 or 4 inches above the vermiform appendix, evidently made by the knife. Under chloroform, the bowels were stitched with catgut (continuous suture), cleansed with warm antiseptic solution, and returned to the abdominal cavity, which was closed carefully. The child died three hours later.

Mr. L., aged 35, gave the following history. A few years ago he had a silver plate with one tooth attached made at Shanghai. Two months previous to my seeing him he had swallowed the plate, in some manner not clearly stated. Soon after, he presented himself at one of the dispensaries in the city and gave the history of the case; but after the physician had tried different means of determining whether the plate was in the throat or not, he decided that it was not, and told the patient so. Two months passed and the pain still continued, with difficult swallowing and hoarseness. At this juncture he came to my notice. I passed a small bristle probang, which met with considerable resistance 3 or 4 inches below the base of the tongue. After entering the stomach I opened the probang and began to pull. At the same point an object was encountered, which required considerable force to move. After many efforts the plate was detached and drawn out. Below are its outline and dimensions in Chinese inches:—



$1\frac{3}{10}$ inch long and $\frac{8}{10}$ inch wide.

After it was extracted very little bleeding took place. I ordered mucilaginous drinks and told the patient to call again, but he never came.

A multitude of cases with carbuncles in all stages have presented themselves.

The treatment was the injection of pure carbolic acid—10, 15 or 25 minims,—or crucial incision.

The following meteorological observations were taken by Messrs. STRONG and STOCKWELL, of the Chinese Customs service:—

METEOROLOGICAL TABLE, January to September 1891.

MONTH.	ATTACHED THERMOMETER.		BAROMETER.		THERMOMETER.							
					Dry Bulb.		Wet Bulb.		Maximum.		Minimum.	
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.
	°	°	*Inches*	*Inches*	°	°	°	°	°	°	°	°
January	64	43	29.08	28.68	58	42	54	41	54	43	58	40
February	74	38	29.36	28.60	74	36	61	34	74	36	64	34
March	80	52	29.18	28.68	76	48	67	47	76	49	60	47
April	96	57	29.36	28.62	94	54	75	52	94	54	81	51
May	96	64	29.18	28.70	95	60	81	61	95	60	88	60
June	94	72	29.10	28.68	91	70	83	67	91	70	82	64
July	96	74	28.96	28.60	94	73	87	71	94	73	90	73
August	96	74	29.04	28.74	95	72	86	69	95	72	85	71
September	96	70	29.20	28.86	93	66	79	65	93	66	85	60

The rise of the river during July: maximum, 65 feet; minimum, 32 feet. August: maximum, 43 feet; minimum, 28 feet. September: maximum, 46 feet; minimum, 25 feet.

DR. A. SHARP DEANE'S REPORT ON THE HEALTH OF PAKHOI

For the Half-year ended 30th September 1891.

THE health of the foreign residents and native population for the period under review has been exceptionally good.

As regards the foreign residents, with the exception of a few cases of herpes and boils—common affections here during the latter half of the hot season,—slight attacks of diarrhœa, and sore throats, no cases of illness have occurred.

A resident missionary was invalided home suffering from remittent fever, with hepatic complications, contracted while on duty in Kwangsi.

The birth of a male child took place on the 30th September.

With regard to the native population, from what I could learn in the immediate neighbourhood of Pakhoi and at Lien-chou and other outlying towns, it appears that the health of this district has been better than during the corresponding period last year and far above the average for some years past.

On the 11th July the decennial procession and general festival, on a large scale, was celebrated, as a thanksgiving for the comparative immunity that this district has enjoyed from plague, pestilence and all deadly diseases for the last 10 years, and also as a precautionary measure against their appearance here within the next decade. The ceremonies extended over a period of six days and cost about $7,000.

Diarrhœa and cholera, which usually prevail from July to September, were this year almost absent, and, in consequence, we were relieved from the depressing influence of funerals, with their concomitant bagpipe-like music, and the discordant inspirations emitted by mourning women, who think it necessary to produce the most fiendish sounds of which the human voice is capable during inspiration—a form of crying, I think, peculiar to this nation.

Measles was epidemic during April. The cases were mild and ended favourably.

Bubonic plague was rumoured to be in and in the vicinity of Pakhoi during April, owing to three persons having died suddenly in a house close to the town and other cases of sudden death having taken place in this neighbourhood. There was not, however, the least foundation for such a report. The three people that died in the house were found dead by their neighbours, and the probability is they had eaten food containing poison the night previous to the occurrence, as they seemed to be in good health the day before.

From May to the end of September the temperature was higher than usual. The wind was variable; south-easterly and south-westerly winds, which are damp and productive of much

lassitude, did not blow so continuously as during the previous two years, northerly winds being frequently experienced. At no time were we left without rain for more than a fortnight. Heavy thunder-showers fell at short intervals all through the hot weather, which washed out the town regularly and drove the fermenting filth into the sea. The rainfall for the six months ended 30th September reached a total of 53.34 inches, being 0.52 inches less than in 1890 and 7.02 inches less than in 1889 during the corresponding periods. In 1889 diarrhœa and cholera were very prevalent, mainly owing to the irregularity of the rainfall during the first half of the hot season. In the following meteorological table the temperature has been taken according to the rules laid down by the Hongkong Observatory:—

METEOROLOGICAL TABLE, April to September 1891. (Latitude, 21° 29′ N.; longitude, 109° 6′ E.).

MONTH.	THERMOMETER.			Rainfall.	MONTH.	THERMOMETER.			Rainfall.
	Highest.	Lowest.	Mean.			Highest.	Lowest.	Mean.	
	° *F.*	° *F.*	° *F.*	*Inches*		° *F.*	° *F.*	° *F.*	*Inches*
April.....	90.0	51.0	70.0	1.10	July.....	95.0	73.0	85.0	3.83
May	99.8	63.0	76.6	5.73	August	97.0	73.0	83.0	26.08
June	95.0	74.0	84.7	10.58	September.....	95.0	73.0	83.0	6.02

DR. J. H. LOWRY'S REPORT ON THE HEALTH OF WENCHOW

For the Half-year ended 30th September 1891.

FOREIGN POPULATION, WENCHOW AND DISTRICT.

Male adults	12
Female adults	6
Male children	2
Female children	2
TOTAL	22

The general health of foreigners resident at this port was only fairly good during the past six months. Every member of the Customs staff has been under treatment. The new out-door staff quarters, on Conquest Island, will, it is hoped, prove a benefit. So far, both members of the staff who live in them have suffered from malarial fever; but it is possible that the poison entered their systems during the time they lived in the former unhealthy quarters. Time will show whether the new buildings are more healthy.

The season was exceedingly wet, rain having fallen almost continuously from April to September. A glance at the meteorological table shows how large the rainfall has been.

One birth and one death occurred during the period under review.

The death was due to acute dysentery, the subject being a missionary lady brought in from an outlying district. Her case was a severe one, and she died on the second day after arrival.

On 8th September another missionary lady met with a severe accident; she fell from the city wall to the street below, a distance of from 20 to 30 feet, and received a compound fracture of the arm.

During July, when H.B.M.S. *Redpole* was stationed here, the sailors suffered much from diarrhœa and fever; they seldom went ashore, yet they had fever of a malarial type. The ship was lying in mid-river. The diarrhœa was lessened by Surgeon BRADLEY putting a veto on fruit being brought on board.

There was said to be a great deal of sickness in August and September among the native community in the city; no cases, however, came under my notice. But from what I heard, the sickness and increased mortality was due either to cholera or choleraic diarrhœa, probably the latter. I am unable to obtain any reliable details as to the mortality; so it is useless to speculate. It is not surprising that there is sickness in the city, for a privy atmosphere pervades the place. Privies and latrines are numerous in every street, and, I understand, are very profitable mercantile speculations. The city has changed a good deal since

Dr. W. W. MYERS wrote on the "Sanitary Condition of Wenchow."* No doubt the increased population has much to do with the change. The streets are no cleaner than I have observed in other Chinese cities and are very unsavoury, and, as I have already said, a privy atmosphere pervades the place, and must be deleterious to the public health. The pleasant sea breezes which Dr. MYERS speaks of do not seem now to reach us, and the poor "cathedral city," as he calls it, suffers in consequence.

The diseases observed and treated during the past six months have been :—

Remittent fever.	Dysentery.
Intermittent fever.	Bronchial catarrh.
Congestion of liver and biliary derangement.	Bubo, result of strain.
Diarrhœa.	Herpes round folds of axilla.
Eczema.	Hæmorrhoids.
Neuralgia.	Compound fracture of arm.
Cardiac palpitation.	Incised wound of hand.
Aural catarrh.	Vermes.
Hernia.	Cancer of womb.
Nerve prostration and debility.	Varnish or lacquer poisoning.

Two cases of varnish-poisoning came under my notice. They reminded me much of erysipelas. Recovery was slow, and treatment seemed useless, as I believe other observers have found it.

I append an abstract from the Customs meteorological observations taken at this port (latitude, 28° 1′ 30″ N.; longitude, 120° 38′ 28″ 50‴ E.).

METEOROLOGICAL TABLE, April to September 1891.

MONTH.	Highest Reading of Barometer.	Highest Day Reading of Thermometer.	RAINFALL.		REMARKS.
			No. of Days.	Quantity.	
	Inches	° *F.*		*Inches*	
April	30.400	79	18	6.61	Several severe thunderstorms occurred, but the port has not been visited by any typhoons.
May	30.346	90	19	7.40	
June	30.056	89	16	7.77	
July	30.026	90	17	9.56	
August	30.550	93	16	15.33	
September	30.450	94	12	8.91	

NOTE.—"An 'inch of rain' means a gallon of water spread over a surface of nearly 2 square feet, or 3,630 cubic feet = 100 tons upon an acre."—*Whitaker's Almanack*, 1891, p. 53.

* Customs *Medical Reports*, XV.

DR. ROBERT H. COX'S REPORT ON THE HEALTH OF WUHU

For the Two and a Half Years ended 30th September 1891.

THE general health of the foreign community (now numbering 55 persons) has been satisfactory during this period.

There have been three births and two deaths—one death from heart disease and the other from infantile diarrhœa. A non-resident also died from cholera.

Malarial diseases were by far the most common, diseases of the intestinal and respiratory systems coming next in sequence.

An epidemic of influenza reached this port in March 1890, when about 20 per cent. of the community were attacked. It made a second visit just six months later, resulting in about half as many victims. Two cases were accompanied by orbital neuralgia and one was followed by severe bronchitis; the others, for the most part, had mild attacks. Cases occurred later among the natives, and the malady remained with them till late in the summer.

Small-pox attacked three residents in the beginning of 1891. In each case the infection appeared to have come from the Chinese, as the patients dwelt wide apart and had no direct communication with one another. All three cases were of a light nature, but the condition of one (she being three months pregnant) gave rise to grave fears, which were happily not realised. All made good recoveries, with little pitting.

Whooping-cough, also from a Chinese source, attacked three children of a family in February 1891. There was no further spread.

Cholera made its appearance here in September 1890, in the person of a Chinese fireman on one of the river steamers, on the voyage from Shanghai. As an example of the risk run by the community at a place where no accommodation for infectious diseases exists, the following account may not be out of place here:—

I found the patient, on arrival, in the stage of collapse, and as there was no hospital for the reception of infectious diseases, recommended that he should be placed in a native boat moored in the stream, and gave directions for the disinfecting of the steamer. This was done; but as a storm was brewing, the men in charge of the patient took the boat to the shore for shelter. On this being discovered, the agent had the boat brought under the lee of his hulk; but in the morning it was absent, and, on a search being made, the patient was discovered in a comatose state among the Chinese passengers on

board a steamer bound for Shanghai. He was again removed to the boat anchored in the stream, where he died about noon. The body was placed in a coffin and deposited on some waste ground at the back of the town, till December, when it was allowed to be forwarded to Shanghai for burial. Though the Consul, Commissioner and the agent of the steamer endeavoured to carry out the isolation of the patient, and the Taot'ai had sent some soldiers to guard the boat, yet the risk of infection on two occasions—when at the shore at night and among the passengers in the early morning—was very great.

To avoid such risk in future, I would suggest that ports on the river unprovided with a fever hospital should have a large covered cargo-boat, properly fitted, for the reception of such cases, which could be moored in the stream at a distance from the town.

A second death from cholera occurred at this port in August 1891.

W. C., aged 50, a pilot on board a steamer loading rice here, had diarrhœa for two months, previous to which he had enjoyed excellent health. The ship had left Shanghai (where there were several cases of the disease) 48 hours before the malady declared itself, the patient navigating the ship and feeling in his usual health. The day before the attack he had eaten a hearty tiffin, including some peaches. Next morning diarrhœa and vomiting set in, which alarmed the officers of the ship, and a signal for medical aid was made, which promptly brought the two surgeons of the English and French men-of-war to his assistance.

On my arrival at noon, just after their departure, I found the patient with severe cramps in the calves of his legs, causing him to cry out; his face, hands and feet were cold, bloodless and wrinkled; his eyes were sunken and his voice hollow and weak; in fact, he was in the algide stage. During my visit he had two watery, colourless motions, and had vomited a similar fluid. The chlorodyne and brandy already prescribed were continued, the former in 40-drop doses every hour, and of the latter a teaspoonful in water every 10 minutes. Hot-water bottles were applied and the calves of his legs ordered to be rubbed during the cramps. Precautions were then taken to prevent the spread of infection.

I called again at 4 P.M., with the English naval surgeon, when we found that the interval had been passed with much less distress—cramps, diarrhœa and vomiting having left him for nearly two hours. His breathing, however, was very shallow and quick (about 50 to the minute), and his extremities still presented the same appearance, notwithstanding the hot-water bottles kept constantly renewed. Before we left the vomiting returned, leaving him extremely weak. His pulse could just be felt at the wrist. Brandy was directed to be given in increased doses and the chlorodyne stopped.

Shortly before 6 o'clock I was called to see him again, only to find him dead. He had passed away quietly, while being supported by an attendant. The after-death appearances differed little from his former condition. The body showed considerable wasting, and the muscular contractions were very marked, so much so that at first sight I thought he was still alive. As the quarters occupied by the patient were easily isolated from the rest of the ship, they having been thoroughly disinfected and secured, the vessel was allowed to proceed on her voyage. No further cases occurred on board.

A case of abscess of the liver which came under observation is perhaps worthy of detail.

A. B., aged 37; had been seven years in China. Health was good during that time, though he had contracted fever at Tamsui in 1886. When seen he complained of feeling unwell, with pain in the epigastrium. Had a muddy complexion, with yellow-tinged conjunctivæ. On examination, a place was found very tender to the touch in the region of the gall bladder, with marked swelling. After treatment with mercurial and saline purgatives and hot local applications, the tenderness diminished and fluctuation became apparent. A daily rise in the temperature to 102° towards evening was noted. He had also

a rigor, when the temperature rose to 104°. After 10 days there was a slight improvement, and he was sent to the hills near Kiukiang for a week, where he gained some strength and appetite.

On his return the swelling and fluctuation were not so evident; but his health became worse, appetite and weight decreased, with much trouble from night sweats. The motions were pale, which he attributed to an almost milk diet. He was then sent to Shanghai for operation; but on his way down was attacked with "diarrhœa" (caused by rupture of the abscess into the bowel), which continued after his admission into hospital and was accompanied by a reduction in size of the swelling. After a tardy convalescence he was discharged cured, 10 weeks from admission, and has enjoyed excellent health since, now over 12 months.

Among the Chinese, ague and skin and venereal diseases are the most common. In the winter of 1890–91 a small-pox epidemic of unusual severity was present in this neighbourhood, when upwards of 2,000 children under 12 years of age were said to have died from the disease.

Many cases of opium-poisoning have been treated. The females in every case recovered, owing, probably, to their taking a smaller quantity, and perhaps regretting the act as soon as performed, obtaining aid before the complete absorption of the drug. Success with male patients has not been nearly so great, the summons to attend often dating several hours after the swallowing of the poison, and on two occasions death occurred before my arrival. The stomach-pump, emetics, strong hot coffee, hypodermic injection of atropine, forced exercise and artificial respiration were the remedies employed.

Several obstetrical operations were performed, including nine craniotomies, in only one of which the mother did not recover. This result is remarkable, considering the surroundings of the patients and the fact that foreign aid is seldom sought till the native midwives have abandoned hope and the patient, leaving her often in a very low condition indeed.

The following may be taken as an example of the rest:—

A primipara, aged 24, living on board a junk, had been nine days in labour. She was in a very exhausted state, almost pulseless. Urine had not been voided for three days. Examination showed the labia œdematous, and a red, serous fluid exuding from the vagina. The head was fixed in the brim of the pelvis, with the vertex presenting. After the administration of brandy and egg mixture, and the bladder had been emptied by catheter, BARNES' forceps were introduced with considerable difficulty, and traction maintained at intervals for nearly an hour, with the result that the head was moved somewhat; but the smallness of the pelvic outlet and the unhealthy condition of the soft parts rendered extraction by this means impossible. A perforator was therefore passed between the blades of the forceps and a crucial incision made, and the brain matter broken up. Traction was again tried with the forceps, and though a large quantity of brain matter escaped through the incision, from the pressure of the forceps and pelvic walls, yet the head remained fixed. The forceps were then withdrawn and a cranioclast introduced, grasping some of the skull and scalp, when, after some delay, the delivery of the body of a large female child, much decomposed, was effected. A putrid fluid mixed with meconium followed the birth. Ergot was given, and the placenta removed with the hand in the uterus, which was then washed out with a warm solution of permanganate of potash, and a binder applied.

The perinæum was lacerated, but no sutures were inserted, owing to the œdematous condition of the parts. The permanganate injections were continued for a week, and the patient recovered without a bad symptom.

In the above case I was led to continue the forceps traction longer than necessary, partly from the wish expressed by the patient that I should not mutilate the child, though it had been dead for days, and from the fact that I had moved the head somewhat by that means. No anæsthetic was administered, owing to the extreme weakness of the patient; but brandy and egg mixture was given frequently by a female attendant from mouth to mouth. The smallness of the room added much to the difficulties of the operation, it being the lower stern compartment of a junk, about 10 feet by 6 feet and only 4½ feet high, with beams and ropes running across, rendering most movements cramped and standing up impossible.

I consider the favourable results in these cases largely due to the position assumed by native women after labour, viz., with the head and shoulders well raised, so that the body is at an angle of about 45° with the horizon, thus allowing thorough drainage. After excessive postpartum hæmorrhage this position, of course, could not be recommended.

The following case, from its rarity, is worthy of record:—

A Chinese boy, aged 13, was admitted to the Wuhu General Hospital with a tumour, the size of a large orange, situated below and posterior to the right mastoid process. The skin and scalp covering it were stretched, but of natural appearance, and the swelling, which had been increasing in size for several years, was soft and apparently movable. Sebaceous cyst was diagnosed. A vertical incision about 4 inches long was made through the integument; but on trying to enucleate, by dissecting the flap on one side, it was found that the tumour had not yet been reached, and the aponeurosis was divided with a similar result. An exploratory incision was then made, which was followed by a jet of dark blood. This was immediately arrested by the finger, and a hypodermic needle was then passed into the tumour, some distance off, when blood-stained serum came away. The sac was emptied of its contents, consisting of blood and bloody serum and clots, when the occipital bone under the superior curved line, apparently eroded, and the transverse processes of two cervical vertebræ could be felt at the bottom of the cavity. The sac quickly refilled, and was again emptied and compresses applied. The patient was put to bed and carefully watched. The following evening the bandage was removed, when very marked pulsation was present in the swelling (which had increased considerably in size), easily checked by pressure on the common carotid. This was therefore tied, and pulsation ceased. The contents of the sac suppurated, and the patient left hospital in six weeks cured.

I think that this was, without doubt, a case of aneurism of the occipital, the occurrence of which in one so young, and in the absence of a history of injury, is remarkable.

A compound dislocation of the ankle without fracture of either bone occurred in the person of a Chinese male, aged 19.

While removing a signboard, he fell from a stool about 18 inches high, the right foot doubling inwards on the uneven pavement. The dislocation was easily reduced by traction on the foot, with the leg flexed on the thigh, but the re-covering of the external malleolus, which projected through a rent in the skin quite 2 inches above its tip, was with some difficulty accomplished, with the aid of a bone elevator, without incision. The limb was placed on a DUPUYTREN's splint, along its inner surface, and an irrigating apparatus applied. The wound healed by granulation in a fortnight, and three weeks later the patient was able to walk without support. Nine months after the accident he came to return thanks, and declared that the wounded ankle was as strong as the other.

The following illustrates the danger of entrusting loaded firearms to the care of unskilled persons:—

A Cantonese, aged 40, went pheasant-shooting, accompanied by a coolie, who carried his gun for him, loaded and cocked. The sportsman was in front, his attendant being about 10 feet behind, with the loaded gun in one hand, while with the other he was carrying some of his master's clothes. As he was rearranging his burdens, he appears to have caught the gun by the triggers, which was at once followed by a double discharge, and his master dropped. Assistance was procured and he was carried home. I was then sent for, and found the patient in a very excited state, and heard his own recital of the particulars of the accident. Two circular wounds, each about 6 inches in diameter, were situated, the one between and overlapping the shoulder-blades, and the other lower down to the left, corresponding to the interval between the eighth and twelfth ribs. Blood and blood-stained serum were oozing from the perforations in the integument. The patient's body was luckily clad in three garments, the middle one padded with cotton wool, so that most of the iron pellets carried with them a tuft of cotton, thus preventing their deep penetration. Many shots were removed, ranging in size from No. 8 to No. 1. He was taken into hospital by Dr. STUART, who removed what remained, and he was discharged cured two months later.

A peculiar disease of an epidemic nature is said to be constantly present during the hot weather; *yang-mao-ch'êng* (楊茂成) is the common name for it. It begins with fever and diarrhœa, during which the Chinese doctor is called in, and, from the character of the pulse, diagnoses the disease and proceeds to apply the remedy. This usually consists of wheaten flour mixed with hot samshu, which is spread over any part of the patient's body the physician may select. It is removed after some time and examined, when some small white hairs may be seen in its substance. I was fortunate enough on one occasion to see a similar treatment applied.

A boy, aged about 10 years, evidently dying from tubercular meningitis, was lying comatose in bed, while an old woman (whose appearance would have cost her at least a ducking in Scotland a short time ago) was leaning over him and rubbing his abdomen with a handful of rush-pith steeped in samshu. After five minutes' friction this was handed to an assistant, when, to the joy of the parents, some of the characteristic hairs were found in it. I then examined some of the rush-pith stewing in samshu ready for use, but could not discover any hairs till the samshu was squeezed out and the spirit partly evaporated, when they became evident.

From this it will be seen that the remedy gives the name to the disease.

It is very common to see maggots being extracted from the eyes of credulous patients in the streets of the native city. The operator sits opposite his patient and inserts the square end of a chopstick between the lids of the affected eye, and rotates it so that the part next the eye moves in an upward direction, when in a few minutes a maggot appears on its upper surface. The patient pays for each as it is extracted, and the supply is regulated by the length of the patient's purse. Each oculist uses his own particular maggot, but sesamum seeds, soaked in water and cleaned, are the ones in general use. The amount of ophthalmia propagated by this means can only be imagined.

The Wuhu General Hospital, under the auspices of the American Methodist Mission (situated on I-chi-shan, a hill on the river bank, about $1\frac{1}{2}$ miles below Wuhu), was opened in 1889, in charge of Dr. STUART of that mission.

For the following extract from the Customs meteorological observations I am indebted to Mr. Acting Harbour Master KINDBLAD:—

METEOROLOGICAL TABLE, April 1889 to September 1891.

MONTH.	THERMOMETER.		BAROMETER.		RAINFALL.
	Maximum.	Minimum.	Maximum.	Minimum.	
1889.	°	°	*Inches.*	*Inches.*	*Inches.*
April	86	41	30.26	29.74	3.67
May	90	52	30.28	29.74	3.72
June	94	65	30.00	29.62	11.15
July	99	71	29.98	29.70	3.60
August	98	67	30.14	29.78	1.32
September	92	54	30.29	29.82	8.05
October	80	46	30.26	29.76	8.35
November	68	33	30.43	29.74	2.27
December	58	23	30.46	29.94	0.05
1890.					
January	58	26	30.42	29.80	1.28
February	67	30	30.44	29.52	1.94
March	70	31	30.40	29.70	5.17
April	88	44	30.17	29.48	5.62
May	93	47	30.07	29.60	3.73
June	94	62	29.80	29.50	6.71
July	99	72	29.77	29.38	4.83
August	97	67	29.78	29.58	3.73
September	89	61	30.05	29.62	0.10
October	83	46	30.28	29.84	0.06
November	75	35	30.40	29.90	4.34
December	66	24	30.36	29.70	1.48
1891.					
January	52	24	30.35	29.92	0.36
February	62	19	30.53	29.74	2.37
March	79	34	30.34	29.68	0.97
April	85	42	30.22	29.60	4.13
May *	...	...	...	...	...
June	95	67	29.76	29.46	3.42
July	98	69	29.72	29.44	8.00
August	97	70	29.93	29.56	5.86
September	92	65	30.05	29.62	3.52

* Observations interrupted during riot.

ABDOMINAL HYSTERECTOMY IN JAPAN.

By WALLACE TAYLOR, M.D.

THIS article is confined chiefly to the technique of the operation, and is not designed to discuss the advisability of operating or the question of electricity in uterine myomata. It is sufficient to say that the operation is confined to myoma and cancer of the uterus too large to permit of vaginal hysterectomy.

Abdominal hysterectomy has occupied a prominent place in the discussions of gynæcological surgeons for the last few years. Many points which five years ago were unsettled and in regard to which there was much discussion have now, through the increased experience of many operators, become well defined, and surgeons are generally agreed as to what should be done and how to proceed. Some minor points are not yet settled and probably will never be, each operator having his own method of operating. But sufficient has been established to justify a brief review of the subject and ascertain the consensus of surgeons in regard to it.

The old question of whether the pedicle should be treated intra-peritoneally or extra-peritoneally has been decided in favour of the extra-peritoneal method. The intra-peritoneal method, in which the pedicle was dropped back into the abdominal cavity, was attended by too great a mortality to be retained as a justifiable procedure. Even the method of cupping the pedicle and bringing the flaps together by means of buried sutures, and finally covering all with the peritoneum, could not redeem it. It was too time-consuming and attended by too high a mortality. A retrospective view of the technique shows its deficiency. The shrinking of muscular tissues loosened ligatures, to be followed by hæmorrhage, and for the necrosis and suppuration of tissues there was no adequate outlet.

The method of enucleation in suitable cases, as practised by MARTIN of Berlin, and others, with closure of the peritoneal flap and drainage through the vagina, has also been given up for like reasons.

The extra-peritoneal method has also undergone modification in the meantime. The old method of surrounding the lower part of the uterus, including the tubes and ovaries, with two turns of rubber tubing held by a tourniquet, so as to check hæmorrhage while the upper part of the uterus and tumour are amputated, leaving a pedicle as thick as a man's arm or a child's thigh to slough away, has become a thing of the past.

The approved technique of the present time is to ligate the broad ligament outside of the tubes and ovaries with interlocked sutures till the lower part of the uterus is reached, then dissect down peritoneal flaps (anterior and posterior) till the cervix is reached, secure this small pedicle with a wire constrictor and *serre-nœud*, stitch the peritoneal flaps to the lower angle of the abdominal incision, suspend the pedicle by transfixing pins on the abdomen and close the incision.

The Fallopian tubes in fibroma are apt to be cystic, and hence should be removed with the uterus. But if the tubes are normal, and especially if the patient is young, it is well to ligate and incise near the uterus and allow the tubes and ovaries to remain. The psychical result is claimed by some authors to be better.

Dr. J. PRICE, of Philadelphia, says the operator who constricts a pedicle as thick as a man's arm does not know how to make a pedicle. You can strip down the peritoneum as the old farmer does his barn-door plants until you reach the circumference of the internal os; and thus the pedicle can always be reduced to the size of a man's thumb. While this is true of the great majority of cases, yet a case is occasionally met with where the tumour has so developed as to obliterate the cervix, and one or both lips of the os may be found flush with the vault of the vagina. In such a case complete extirpation of the uterus is the proper procedure.

The results of thus treating the pedicle extra-peritoneally are good—very much better than by any intra-peritoneal method. PRICE reports 6 per cent. of deaths in his first hundred operations, and states that, excluding malignant cases, the mortality should not be over 2 or 3 per cent. Other operators report favourable results, if not quite so good as PRICE'S. So the operation is brought within the sphere of legitimate surgery.

Objections are brought against this method that it disturbs the normal relation of adjacent organs, making traction on the rectum and compressing the bladder. These objections, however, appear to be theoretical rather than practical, for the parts soon adjust themselves to their new relations and their functions are not materially disturbed. To obviate these objections, KELLEY, of Baltimore, drops the pedicle below the level of the abdominal wall, after sewing the reflected peritoneum to the edge of the incision, and thus suspends it within its peritoneal involucrum from pins across the abdomen. BYFORD, of Chicago, makes an incision into the vagina and turns the raw end of the pedicle into this incision, leaving it to slough off within the vagina. These devices, however, have not been generally accepted and have remained chiefly with those who originated them.

Total extirpation of the uterus without leaving a stump, and closing up the abdominal incision, is now practised by many surgeons with encouraging results. MARTIN, adapting FREUND'S method of extirpating the cancerous uterus to fibromata uteri, now performs complete extirpation. Dr. KRUG, of New York, reports favourably of his work in this line, and states that the technique he uses is the outgrowth of his operations of vaginal hysterectomy, and is original with him. He ligates the broad ligament from above downward, using in general three ligatures on each side—one for the tubes and ovaries, a second one for the broad ligament, and a third for the uterine arteries; separates the bladder from the uterus; makes an incision into the vagina, anterior and posterior to the cervix; and then joins these incisions by lateral ones, which, if the uterine arteries have been well ligated, is done without hæmorrhage. The ends of the ligatures are left long and brought out through the vaginal opening, when a gentle pull will invert the stump of the broad ligament sufficiently to keep it away from the intestines. The pelvis is packed with strips of iodoform gauze, with the ends protruding into the vagina to facilitate removal, and the abdominal incision is closed.

In cases of cancerous uterus, total extirpation, with complete removal of the cervix, is the ideal operation, and this operation meets the requirements. Objections are brought against

it that it breaks the vaginal arch and thus weakens the support that otherwise would be given, and that it removes more than is absolutely called for (the cervix), except in cases of malignant disease, and hence that it is unnecessarily tedious and time-consuming. Dr. PRICE also brings in the objection (against the operation of complete extirpation and in favour of the extra-peritoneal method) that it unduly exposes the ureters to the risk of ligation.

The tendency in surgery is towards conservatism and simplifying the technique, so as to secure rapid work. CHROBAK has made a step in this direction by his modified technique, which he calls the retro-peritoneal method. This consists in making anterior and posterior peritoneal flaps, excision of the cervix above the vaginal junction, dilating and cauterising the cervical canal and then passing an iodoform wick through it into the vagina, and finally bringing the peritoneal flaps together above the cervical stump and upper extremity of the gauze drain, thus completely closing up the peritoneal cavity and leaving the raw surfaces underneath to granulate and heal. He reports 17 operations in nine months by this method without a death.

Dr. BAER, of Philadelphia, practises a modification of CHROBAK'S method. He ligates the broad ligament outside the tube and ovary with one ligature down to the cervix, places another ligature (if necessary) down along the side of the cervix, applies pedicle forceps next the tumour or uterus and severs the broad ligament at each step. He then makes anterior and posterior flaps, commencing an inch or so above the peritoneal reflexion of the bladder in front and somewhat lower behind, and ligates the uterine arteries within these peritoneal flaps outside of but close to the cervix, avoiding the cervix on one hand and the ureters on the other. The cervix is drawn out by traction on the tumour and amputated well down by a sort of cupped incision, the stump seized with volsella forceps and trimmed until the supra-vaginal portion is removed. The cervical stump is then dropped back "without a single ligature or suture in its tissue." The cervical canal is not treated. The elasticity of the vagina withdraws the stump out of sight within the peritoneal flaps, the upper edges of these flaps are turned in so as to bring their peritoneal surfaces together and are left without suturing, and the abdominal incision closed. The temporary ligature is not used.

The advantages claimed for this procedure are that it is safe from hæmorrhage and sloughing, and leaves the cervix in its natural anatomical position. The objection brought against it is that the raw surfaces of the peritoneal flaps may suppurate and thus infect the peritoneal cavity. BAER reports nine consecutive successful cases. TRENDELENBURG'S position is used.

It has become fashionable to quote POZZI now. But we turn to POZZI in vain for any new light on abdominal hysterectomy.

My experience with this operation is limited, being confined to five cases at the Cho-shun Hospital, Osaka. The results are, however, encouraging, as I have had four consecutive successful cases, and the fifth—a malignant case—a failure from an accident at the close of the operation.

CASE I. — *Uterine Myoma; Abdominal Hysterectomy, Extra-peritoneal Method.* — Mrs. J., æt. 43. Puberty at 17; married at 23; has never been pregnant; menses still continue. Duration of tumour,

four years. Operation performed on account of continued hæmorrhage and pain that failed to be relieved by treatment.

Operation, 17th May 1892.—The abdominal incision extended from just below the umbilicus to near the pubes. The tumour and uterus were turned out with Tait's screws. The broad ligament was clamped outside the ovaries and tubes with Wells's large catch forceps, another forceps placed next the uterus to prevent distal hæmorrhage, and the broad ligament excised so as to remove the tubes and ovaries with the tumour. Two sets of forceps were used on the left side and one set on the right side, the bleeding points on the right side being caught with small catch forceps. The boundary of the bladder was outlined by a sound passed into it, and the peritoneum incised across from side to side about 1½ inch above and dissected down till the cervix was reached, by means of the closed points of curved scissors, snipping a band of fascia here and there. The posterior peritoneal flap was dissected off in the same way. The peritoneum on the posterior surface is much more closely adherent to the uterus and cervix than on the anterior, and must be dissected off with the point of a scalpel, or, what is better, using the cutting point of a blunt pair of curved scissors; and it is well to strip down the external muscular layer with the peritoneum.

An attempt was now made to secure the cervix by means of a constricting wire and *serre-nœud;* but the Delta-metal wire had crystallised, and every time it was bent over the catch it broke, so it had to be abandoned, and the cervix was transfixed and ligated with a double ligature and the tumour cut away. The cervical canal was curetted and cauterised. The broad ligaments were now secured by interlocked ligatures down to the peritoneal flaps and the forceps removed as the ligatures were drawn tight. The peritoneal flaps were stitched to the skin at the lower corner of the abdominal incision, a drainage tube inserted and the abdominal incision closed. The pedicle was suspended by means of transfixing pins passed through it at right angles above the ligatures and resting on the abdominal wall. Aristol was packed in around the raw surfaces between the pedicle and the peritoneal flaps, and a mixture of one part of iodoform and five parts of boracic acid heaped up to cover all completely. Temporary elastic constrictor was not used.

The tumour weighed 1¾ lb., and was a spongy, elastic myoma. It was intramural, situated in the right side and fundus of the uterus, and was surrounded within and without by uterine tissue from ⅛ to ¼ inch thick. There were several small myomatous nodules besides the main tumour.

The recovery of the patient was uneventful. The drainage tube was removed within 24 hours, the bowels moved by saline enemata on the third day. The pedicle was dressed every two or three days, changing the Aristol as it became moistened. The pedicle shrivelled and came away on the seventh day after the operation without odour or suppuration. Highest temperature 38°.1, and pulse 120, for a short time on the third day.

I was absent from the hospital for a fortnight and left the patient in the care of the interne. When I returned, a month after the operation, there was a small sinus extending from the site of the drainage tube to the depression occupied by the pedicle, just underneath the skin. This was cut out, curetted and packed with iodoform gauze, and the patient given permission to walk about. She left the hospital a few days later with the incision well healed.

The Delta-metal wire having served me so badly, I at once sent off for a new supply. When it came to hand it was tough and flexible, but a few months after, when I wanted to use it, I tested it again and it had so crystallised that when I attempted to bend it, it snapped into three or four pieces and was utterly unreliable. I was under the necessity of taking some copper wire of the proper thickness and rendering it flexible by heat. This is always reliable and answers the purpose well.

In the meantime Dr. BAER'S and Dr. POLK'S articles came out, and I resolved to adopt some of their plans in my next operation.

CASE II.—*Uterine Myoma; Abdominal Hysterectomy, Retro-peritoneal Method.*—Mrs. J., æt. 26. Puberty at 15; married at 20; has never been pregnant. Duration of tumour, two years since first noticed; growing rapidly of late. Operation on account of profuse menstruation and pain, unrelieved by treatment.

The vagina was prepared for operation by shaving the external parts, scrubbing the vagina with soap and mop and the external parts with brush. All was thoroughly disinfected with 1 : 1,000 solution of bichloride of mercury and the vagina packed with gauze wrung out of a solution of the same strength, the evening before and again the morning of operation.

Operation, 10th January 1893.—After the patient was fully under the anæsthetic, the tumour, which was wedged into the pelvis, was dislodged and pushed up into the abdomen. One of the ovaries was incorporated with the tumour, and hence oöphorectomy was out of the question and hysterectomy was at once decided upon. The tumour was turned out with Tait's screws. A ligature was placed outside of the ovary, tube and its fimbriated extremity, down to the uterus on the left side, tied and clamped next the uterus. Then another ligature down the side of the uterus was tied. The right side was treated in the same way. Then the limits of the bladder were outlined, and the anterior peritoneal flap begun an inch or so above it and dissected down to the cervix. The posterior peritoneal flap was made in the same way. The dissection of the anterior flap was easy and rapid. The peritoneum was firmly adherent to the posterior surface and the outer muscular coat was stripped down with it. A ligature was now placed within the flaps on each side, coming well down beside the cervix, and the anterior and posterior flaps joined by incising the tissues included in the ligatures close to the uterus and cervix. Ligatures were then placed on each side of the cervix, well down, and the tumour cut away. The cervical pedicle was trimmed, the cervical canal dilated, curetted and cauterised, and the four strands of the two ligatures on each side of the cervix passed through into the vagina. The ligatures in the broad ligament and those within the peritoneal flaps were cut short. Then taking a chromatised catgut suture and a short curved needle, commencing on the left side, the peritoneal edges of the broad ligament stump were whipped in and sewn with a running stitch till the peritoneal flaps were reached. The edges of these flaps were turned in and a continued Lembert stitch used till the stump of the broad ligament on the right was reached, when it was treated as the left side had been. There was thus a continuous suture from side to side across the pelvic floor and no raw surface presenting. Traction on the ligatures within the vagina drew this deep into the pelvis and the abdominal incision was closed.

It will be seen that some points from POLK, CHROBAK and BAER were incorporated into the technique of this operation. A ligature was placed within the folds of the peritoneal flaps, securing the vessels at the side of the uterus and cervix, after BAER. Instead of CHROBAK'S drain, the ends of the cervical ligatures were turned through the cervical canal after POLK, and the peritoneal flaps closed after CHROBAK.

The tumour, uterus, ovaries, tubes and fimbriated extremities were removed *en masse*. The tumour was a solid fibroid, occupying the fundus and surrounded by uterine tissue as a calyx encloses a flower bud, and weighed 1¾ lb. The cervix was amputated ½ inch below the inner os.

The patient had a rapid and uneventful recovery. The bowels were moved the third day. The cervical ligatures came away on the seventh day, and the patient was up and walking about the hospital on the twenty-first day after the operation. It was an easy matter to dilate the short cervix and wash out with a glass tube, which was done every day. The discharge was slight, and the subsequent care was so much less and so much more acceptable to the patient than the fussy dressing in sight on the abdomen, and gave such satisfaction generally that I shall use this method hereafter when possible.

CASE III.—*Uterine Myoma; Abdominal Hysterectomy, Retro-peritoneal Method.*—Mrs. K., æt. 42. Married at 15; puberty at 17; had one child at 22 and one abortion six years ago. She has had profuse menstruation since abortion. She noticed a tumour some two years ago in the lower part of the abdomen. Operation performed on account of profuse menstrual discharge, continuous sanious discharge and pain.

Operation, 23rd March 1893.—The left ovary was spread out over the tumour and incorporated with it, and oöphorectomy out of the question. The technique of the operation was essentially the same as in the previous case. The peritoneum was closely adherent to the uterus and cervix, both anteriorly and posteriorly, and was dissected off with the outer layer of the muscular tissue. The tumour weighed 2½ lb. It was submucous, occupying the left side and fundus; there was also a smaller fibroid anterior and subperitoneal, and a third submucous and within. The recovery of this patient was also uneventful. She was up on the twenty-second day after the operation.

Case IV.—*Uterine Myoma; Abdominal Hysterectomy, Retro-peritoneal Method.*—Mrs. H., æt. 50. Puberty occurred at 15; was married at 22; has had three children and one abortion. Operation performed for continuing profuse menstrual discharge and pain. There was an ill-defined boggy mass on the right side.

Operation, 13th April 1893.—The technique was essentially the same as in the previous two cases. The mass on the right proved to be a plexus of distended veins and two small fibroids, requiring an extra ligature to secure them. The ligatures were placed outside and they were removed with the tumour. In tying, one of the ligatures broke—a No. 12. I use Nos. 10, 12 and 14, braided "pure English silk." They are all tested before operation. I have never broken No. 14 even under the stimulus of the operation. The tumour consisted of four soft fibroids, weighing 1 lb. One larger submucous, lateral and posterior; another subperitoneal and superior; and two smaller ones along the side of the uterus and underneath the right ovary and tube. The arteries were numerous and large on this side.

The recovery was interrupted by a little incident on the seventh day. The patient was taken suddenly with severe abdominal pain. The muscles became rigid, the temperature ran up to 39°.6 and the pulse to 110. A hypodermic injection of morphine was given (I use morphine only in very exceptional cases in laparotomy); a cathartic enema was administered and ice was packed on the abdomen. The patient soon became easier, the temperature sank to 38°, the pulse to 95, and she was again comfortable as before. The whole disturbance did not cover more than three or four hours. No assignable cause was discovered. She was on her feet on the seventeenth day after the operation.

Case V.—*Carcinoma of Uterus; Abdominal Hysterectomy, Retro-peritoneal Method.*—Mrs. O., æt. 56. Puberty occurred at 14; was married at 19; has never been pregnant; menopause at 37. Patient noticed a tumour in the lower abdomen some 18 months previous. It has gradually increased in size and extends up to the umbilicus. She has had some discharge. No bloody discharge till after my examination four days ago; at that time there was a little blood lost from manipulation. Operation advised on account of continued growth of tumour and increasing pain. Diagnosis: probably a fibroid tumour, but might be a cancer; final diagnosis reserved till operation.

Operation, 2nd May 1893.—When the abdomen was opened the tumour was seen to be symmetrical, pear shaped, extending above the umbilicus, the peritoneal covering slightly œdematous and of a pale pink hue, and was at once pronounced cancerous. The tumour was so soft that Tait's screws would not hold, not even when grasped short and used as a lever. I was under the necessity of enlarging the incision upward, inserting my hand beneath the tumour, turning it up edgewise and thus delivering it. The tubes on each side were cystic and as large as sausages, the one on the right side 4 inches and that on the left side 6 inches long. The technique after this was essentially the same as before described. The ligatures were placed outside the cystic tubes, so the tumour, cystic tubes and ovaries were all removed *en masse*.

The bladder was lifted by the tumour some 3 inches above the pubes. Its border was outlined by a sound, and a crescent-shaped incision made in the peritoneum about 1½ inch above it. The separation of the peritoneal flaps was readily done. The tumour bulged out low down on the left side. After the posterior peritoneal flap was stripped down and as the cervical ligature was being inserted, it burst open on the left side, low down, and the *débris* and the cancerous juice from the interior escaped into the pelvic cavity. The ligatures were rapidly tied, the tumour cut away and the pelvis thoroughly sponged.

In suturing the peritoneal edges of the broad ligament stump one of the ligatures was seen to have partially loosened. Its loop had been taken too long and it did not securely hold. It was replaced and the abdomen closed.

The tumour weighed $3\frac{1}{2}$ lb. and was so soft and friable that it would not bear its own weight when suspended by the hook of the steelyard, and had to be suspended in a cloth to be weighed.

The patient did well for two days, when symptoms of peritonitis (septic?) began to manifest themselves, and she gradually lost ground and died. The tissues were not sound and healthy, they had lost their tone and recuperative power; but still the *débris* and cancerous juice spilling into the pelvic cavity were most probably the cause of the peritonitis.

While this paper is being prepared an article by Dr. LANPHEAR, of Kansas City, appears in the *Annals of Surgery*, in which he claims that his method of operating possesses some special advantages. The special points of technique that he lays stress upon are (1) turning the tumour on its edge, clamping the broad ligament next the uterus, setting the ligatures, and then cutting between them, first on one side and then on the other, through the abdominal incision, with the tumour and uterus *in situ*, and (2) then delivering the tumour thus partially freed from its attachments; and after he has made the anterior and posterior peritoneal flaps, he inserts his finger into the vagina, and (3) upon his finger as a guide he makes an incision into the vagina anterior and posterior to the cervix, then passes a pair of broad ligament forceps and clamps the uterine vessels on each side as in vaginal hysterectomy, cuts away the uterus and closes the peritoneal flaps over the forceps, which are removed after 24 or 36 hours. He claims that by this method the time consumed is much reduced. He seems to me to minimise some of the points of difficulty in the operation and over-extol some of those of his own device. The operator who first clamps the broad ligament and then sets his ligatures and ties will occasionally find them loosen and hæmorrhage result. He must take a narrow bite with his ligature or leave the tissues free to be firmly compressed as the ligatures are tightened.

I have made inquiry, but have not been able to ascertain that the operation of abdominal hysterectomy has been performed in Japan elsewhere than in the Choshun Hospital.

THE INFLUENZA EPIDEMICS IN FOOCHOW.

By T. B. ADAM, M.D., C.M.

ATTENTION was first called to the existence of influenza in Foochow in March 1890 by an outbreak in the schools of the American Methodist Mission. A large number of the pupils and one of the foreign teachers were attacked. The latter I attended. A sharp attack of fever, attended by frontal headache, was followed by great prostration, and for fully a month thereafter the patient was troubled with nervous headaches. The girls' school is situated in a separate compound from that of the boys', and about $\frac{1}{4}$ mile distant. Both schools are in the midst of the foreign Settlement. Early in April the English Mission girls' school, also in the Settlement, was invaded, and two-thirds of the pupils and one of the lady teachers were sick with influenza. In the first week of May I was called to attend a lady of the American Board Mission, living within the native city, 3 miles distant from the Settlement. She presented typical symptoms of the neurotic type of influenza. Her illness was speedily followed by that of her child, husband and amah. The American Mission station at Ponasang, half way between the native city and Settlement, was next visited by the epidemic, and a few days later an outbreak occurred in the English Mission college and boys' school, situated close to the Settlement. Outside of the missions, five foreigners suffered from influenza in May and one in June.

In all these cases the onset of the disease was sudden, closely simulating a sharp attack of ague. An initiatory rigor or feeling of chilliness was succeeded by a fever of one to three days' duration, followed by prostration, from which recovery was slow. No sore throat was complained of, and bronchial catarrh only occurred in two of all the cases that came under my notice. Treatment consisted of a dose of calomel followed by a few doses of quinine. All made good recoveries.

Nothing more was heard of influenza until November, when a resident who had been on a visit to Shanghai, where the disease was again prevalent, returned to Foochow incompletely convalescent from an attack and suffering from severe bronchial catarrh. He made a slow but good recovery. No further cases came under notice until January 1891.

A brief sketch of the sequence of cases in the January epidemic will, I think, afford conclusive proof of the spread of influenza by actual contact.

January 5th.—I was called to attend A., and found him suffering from a sharp attack of influenza. 6th.—A.'s mess companion, B., sickened. 7th.—A. and B.'s domestic attendants down with influenza. 8th.—C., a friend who had called to see A. and B. the previous day, reports himself sick. 9th.—I fell ill. It must be noted that no other cases of influenza occurred in the community outside of those I detail. C. communicated the disease to three friends who visited him. My illness was followed within a few days

by that of my wife, two children, amah and house-boy. A playmate of my son's, who frequented the house, also fell sick, his illness being shortly followed by that of his mother. Only three other foreigners suffered from influenza in January, two of the cases being reasonably traceable to the group of cases detailed above.

In February the American Methodist Mission compound was revisited. The pupils were home for the Chinese New Year holidays. Eight of the foreign staff were attacked, one after the other, by influenza, including the mission doctor and nurse. A missionary in perfect health, on the eve of starting off for a country trip, "looked in for a minute" to see a brother missionary sick in bed with influenza. A few days later news came to hand that he was stricken down with influenza in a country station. An English Mission lady, living in the American compound, had a mild attack. A lady friend of her mission visited her one afternoon and as a consequence was sick in bed next day with influenza. Her friend and nurse sickened on the following day.

Influenza as experienced in January 1891 was a much more serious disease than in the spring-summer epidemic of 1890. A.'s case may be briefly detailed, as characteristic.

January 5th.—Felt sensation of chilliness, aching all over body, and complained of severe frontal headache and sore throat. Temperature in evening, 102°.

6th.—Temperature 102°.5. Headache very severe. Tonsils are much inflamed.

7th.—Temperature 103°. Headache and sore throat slightly relieved.

8th.—Temperature normal. Headache gone. Feels excessively weak. Throat less painful. Has cough with feeling of soreness in chest.

9th.—No fever. Suffers from bronchial catarrh. Feels "good for nothing." Remained for a few days after this in a warm room, nursing his cough and slowly picking up strength, then imprudently went out one afternoon and had to return to bed for a week with a sharp attack of bronchitis. Strength returned very slowly and fully a month elapsed before convalescence was complete.

In my own case the attack was ushered in with a severe rigor, and a feeling of chilliness continued for about 12 hours.

Fever usually lasted from one to three days. In two cases it continued for a fortnight. Temperatures ranged from 100°.5 to 105°.

Headache was present in all cases—an aching frontal headache, persisting as, a rule, until fever left. No special complaint was made of the eyes by any patient, and nothing was observed to support Dr. BEZLY THORNE'S theory of the conjunctiva being the point of invasion of the disease.*

Nervous System.—Prostration, well marked, was characteristic. For at least a week after fever left patients felt "good for nothing." In the case of a child of 4, partial paralysis of lower limbs occurred. On attempting to walk the little fellow repeatedly fell, and for two days he was exceedingly wroth with his legs for failing to carry him. Sleeplessness was a feature of many cases. Convulsions accompanied the fever in the case of a child of 2 years.

Bronchial Catarrh was an almost universal sequela—or, more correctly, feature—of the winter epidemic. In several cases the bronchitis was very severe and accompanied by profuse expectoration. Much relief was obtained from poulticing.

Sore Throat was a very general symptom, the inflammation varying from a mere redness of the fauces to severe tonsillitis. Experience seemed to prove that vigorous treatment of

* *Lancet*, 4th January 1890.

the throat symptoms, with chlorate of potash gargles, lessened the severity of the subsequent bronchial catarrh.

Nasal catarrh was generally, but not universally, present.

Ear-ache was a sequela in four cases.

In no case was any eruption observed on the skin.

A break of warm summer-like weather occurred in February, and I noted that patients then sick with influenza got over their attacks with very slight catarrhal symptoms. It would appear from this observation, and the experience of the spring-summer epidemic of 1890, that in the state of nervous prostration following the fever the mucous membranes are rendered exceedingly prone to inflammation, and the presence of cold weather is the determining cause of the bronchial catarrh.

In the foregoing notes I have not dealt with influenza as affecting the natives of Foochow city and surrounding villages. From the report of missionaries it is evident that the epidemic spread throughout the province of Fuhkien. In the winter epidemic the mortality amongst the old and very young was great. I saw many severe cases, but they were all so complicated by the insufficient diet and miserable surroundings that other than fatal results could hardly have been looked for. A large mortality among pigs occurred during the course of the epidemic. Several of the foreigners' ponies suffered from symptoms sufficiently suspicious to raise the question whether they were not victims of influenza.

ON MR. J. T. ROE'S THEORY THAT INFLUENZA IS ENDEMIC IN CHINA.

By JAMES CANTLIE, M.A., M.B., F.R.C.S.

IN the continent of Asia reports of the prevalence of influenza have been made from Siberia, Thibet, Tonkin, Singapore, Penang, China, India and Japan, in the order given.

In Hongkong we have not been without diversity of opinion as to the name. In fact, one or two medical men refuse to recognise the disease which has prevailed here as influenza. We have had a repetition of names such as one sees in the medical journals—"dengue fever," "fever with rheumatic pains," "fever with epidemic catarrh," and such like. This is one sure proof, if such were needed, that we have had influenza, as the presence of the disease has provoked similar contentions in all parts of the earth.

But a peculiar interest attaches to influenza in China. The Russians call it a Chinese disease, and, for aught we know to the contrary, they may be right. Whether they merely regard the present epidemic as arising there, or whether they regard the disease as endemic in China, I have not yet been able to ascertain. It may merely be that they called the disease Chinese in the same way as the people in Western Europe called it Russian influenza and the residents in Hongkong called the second visitation of the disease Shanghai influenza, and so on. The disease, in fact, is named, as many others are, from the last place it comes from, irrespective of the real origin.

But an attempt has been made to focus influenza upon China.

In a paper read before the Balloon Society influenza is regarded as peculiarly a Chinese disease. The statements are referred to by numerous London papers, and in the Hongkong *Daily Press* they are commented upon as follows:—

Mr. JAMES THORNE ROE, C.E., at a recent meeting of the Balloon Society, read a paper in which he contended that influenza is a Chinese marsh fever. The lecturer illustrated his theory by referring to the Yellow River, which is 2,400 miles in length, and which he contended was the real home and seat of the disease. Its inundations, he said, caused the deposit over an immense tract of country of the insanitary filth of populous cities and towns, and to this must be added the calamity of 1887, caused by the bursting of its embankment, burying in the mud entire villages with their "millions of inhabitants." "Would not," Mr. ROE proceeds to inquire, "the effluvia and dust arising, often in the minutest particles, which exhale from putrefying animal or vegetable substances, be sufficient to infect distant lands, providing the air current and weather were favourable for conveying these poisonous vapours or the particles of pulverised mud charged with these germs of disease?" In support of this idea the lecturer quoted the eruption of Krakatoa volcano in August 1883, the cloud of dust from which is reported by the Committee of the Royal Society to have passed three times round the globe. From this fact the lecturer argued the connexion between the countries of the West with the marshy districts of China, the fever germs from which undoubtedly float in the air and may travel indefinitely. He thought, moreover, that these germs sometimes arrive in a dormant state, mild weather imparting to them life and energy, and they would probably thrive best in low or marshy districts and on the banks of rivers.

The writer goes on to say—

All this sounds plausible enough, but we should like to hear what the members of the medical profession practising here and in the Treaty ports have to say on the subject. Does the so-called influenza possess any great affinity to the fevers prevalent here and in China? If so, how is it that the disease has become epidemic in the Western world when here it is only sporadic?

It is the statements made by Mr. ROE and the comments made by the local press which it behoves us to answer, and I propose to do so by attempting to excite discussion on the subject.

On instituting an inquiry we have to decide—

I.—In the opinion of medical men, has influenza visited China at all, and when?

The per-centage of opinion, judging from the belief entertained by civil, military and naval men in Hongkong—and we can take it as a specimen of the scientific belief in China,—is about 80 per cent. "ayes," 20 per cent. "noes."

So it must be said when put to the vote, we have had influenza. Further, the "noes" qualify their opinions by stating, "We have had fever with catarrh," and the medical staff, whilst on the one hand rejecting the name influenza, dub it "epidemic catarrh." But epidemic catarrh is the synonym for influenza given in the nomenclature of disease of the College of Physicians. These and such-like are the result of local hitches in professional opinion and relations which occur everywhere and cause an attempt at a difference in name when there is none in belief. So that actually all medical men in China admit as a scientific fact we have had influenza.

II.—The next point to be settled is: when did the epidemic appear in China? Did we have it in 1890?

Certainly; both on shore and afloat it was prevalent. When the flagship of the Chinese squadron was lying in Hongkong Harbour in March 1890, 147 of the crew were suddenly seized with the disease. Was influenza present in 1889? Yes, but sporadically. Was it known in 1888? Here is the crux by which an important tale may hang. In September and October 1888 a disease existed in Hongkong which puzzled the local practitioners. It was called "fever with rheumatic pains," "a variety of dengue," "a variety of German measles" and so forth.

I read a paper on the subject before the Medical Society, but no progress was made at the subsequent discussion as to a definite name. The paper was laid aside, and in the month of June 1891—*i.e.*, three years after—I took it up again and read it through, and to my astonishment found an exact account of influenza as we now know it. This is a most important paper, as it is the first written record of the modern epidemic of influenza.

If there is any value in unprejudiced evidence it is to be found in such a record. Here was a paper written during the epidemic of an unknown disease, stating clinical facts merely. The facts were arranged and needed a name, but none was forthcoming until three years afterwards, when, from collateral evidence in other parts of the world, it was found to be influenza we were dealing with. No one can gainsay the fact that we had influenza in Hongkong in 1888.

III.—How did the epidemic travel?

In 1888 we had the disease in Hongkong. The next time we hear of it is in Russia, in the following year—1889,—and in 1889–90 in England. Then an intermission occurred, and again, in 1891, the disease appears in England, after 10 months' cessation. Noticing the dates carefully, we see that at least twice has the disease visited Britain—1889–90 and 1891. The dates in Hongkong and Britain have been—

Hongkong, 1888;	Hongkong, summer of 1890;
Britain, 1889–90;	Britain, spring of 1891;

the appearance of the disease in Hongkong preceding the appearance of the epidemic in Western Europe.

Moreover, the second outbreak in Hongkong came by way of Japan and Shanghai, so much so that many called it "Shanghai" influenza or "Japanese" influenza. Again, the disease appeared in Japan subsequent to its travel across America, and the Pacific steamers were held by the Japanese guilty of its introduction. Thus it appears to have left China in 1888, travelled across Siberia to Europe in 1889, reached America, and appeared in the Far East again in 1890. In 1891 it again attacked the Russians, and subsequently Western Europe. It thus appears that it travels from east to west and that it has gone twice round the world. That it has finished is not by any means certain. The dust from Krakatoa travelled thrice round the world from east to west; and if particles of dust can thus be carried round the earth, how much more conceivable is it that "fomites," the "microbes," the "influence," the "chemical condition of air," or whatever in our ignorance we choose to term it, may journey longer. That the method of travel in previous epidemics was such, we know. Nothing is more convincing than the account of a fleet of five men-of-war crossing the Atlantic in the beginning of the present century, from the West Indies to England, when three-fifths of the crews were prostrated by influenza which was then prevalent in England, and, further, that a few days subsequent to the occurrence the disease appeared in America. So that from east to west seems to be the course hitherto pursued, and the present epidemic is no exception.

Dr. PARSONS'S Report to the Local Government Board deals with many theories. He declares that the disease travelled from east to west, and concludes, therefore, that the wind has nothing to do with it, as it frequently blew in an opposite direction, and ascribes contamination to human intercourse. How did the ashes of Krakatoa encircle the earth thrice? Surely the winds do not blow in the same direction all the time? And if solid particles of dust can be thus made to travel, how much more easily might germs (?) do so. Dr. PARSONS seems to have forgotten that the revolution of the earth is constant and in the direction mentioned, the course of the wind local and variable, and most diseases which spread by atmospheric contagion follow the course of the Krakatoa dust. The fine particles of dust may have attained a height where the lower air currents were impotent, and as they gradually deposited, the revolving earth was besprinkled with them in the sequence of its process of revolution.

IV.—Is influenza endemic in China?

We are now face to face with Mr. ROE'S contention that influenza is endemic in China. Mr. ROE states that influenza is a "marsh malarial fever." I believe that is one reason why

the medical profession in China has been so slow to diagnose the disease. Malarial fevers are ever associated with aches and pains, and they run an erratic course of hours, days or weeks. It is among the latter class that we have to search for influenza; but so close is the affinity between the symptoms we know of as peculiar to local fevers and influenza that almost our only means of recognition is by the catarrh. Now, catarrh is met with in less than half the cases in Europe and is not a necessary accompaniment of the disease. We must lay aside at once the belief, as Dr. PARSONS says, that the epidemic which has just raged is merely an exaggerated form of bronchial catarrh or influenza cold. But amidst the multiplicity of forms of fever which one is accustomed to see, I repeat it is difficult without the presence of catarrh to diagnose influenza as distinct from some vagaries of the local malarial fever one meets with. But if catarrh and lung complications are not usual accompaniments in Britain, how much less are they likely to be in South China, where the climate lessens the risk of lung troubles to a great extent, compared with that of a colder climate.

All this proves that not only has influenza been present, but, as few doctors of my acquaintance would acknowledge its presence *until catarrhal symptoms showed*, I believe I am right in my conclusion that not more than two-fifths of the cases of influenza were diagnosed by us. The affinity between some forms of fever and influenza without catarrh is such that, not only now, but when influenza is not brought home to our minds by existing in an epidemic form elsewhere, many cases occur which it is impossible to classify or pronounce as different from influenza as we now know it.

V.—The Huang-ho or Yellow River mud theory.

Mr. ROE contends that the basin of the Yellow River is the birthplace of influenza, and from thence it travels as from a centre. It would not be exceptional were such the behaviour of this disease. Cholera, for instance, is endemic to certain districts in India, whence it occasionally spreads over the whole world. Typhus fever, a disease known to be caused by overcrowding, has many times spread from overcrowded centres and become diffused far and wide in country districts. So far, then, reasoning by analogy, there is nothing improbable in the idea of a region where the disease is endemic.

Unfortunately, I have no experience of the diseases prevailing in or about the basin of the Yellow River; and if this article can but bring to their pens some of the medical men who have experience there, it will have done much towards elucidating the subject and giving Mr. ROE the "yea" or "nay." But the writer must be wary in his record. He must compare the form of "fever" met with in the neighbourhood and that experienced elsewhere either by himself or others. He may, if experienced elsewhere, put down what he meets with in the Yellow River region as one of the many varieties of "malaria." The forms of local fevers met with are of endless variety. Were it not so we should not hear such names as "Gibraltar fever," "Malta fever," "Cyprus fever," "Roman fever," "West Coast fever," "Hongkong fever," etc., all of which vary in type, but are classed now as arising from organic poisoning or from malaria. "Fevers" in South China are but seldom aguish in character. A person coming, for instance, from Mauritius to Hongkong has "rigors with a cold period" with his first recurrence of fever, but less so than in Mauritius; with the later recurrences the cold period gets less

and less, until by the fourth attack the fever has become of the usual Hongkong type, with no rigors and a cold period slight or unnoticeable.

Now, in the vast length of China fevers must vary according as they are met with in the tropical, subtropical or temperate zones, and to class them all as malaria shows how little is known about the genesis of fever. Hence I say the recorder of disease has to be careful that he is not dealing with a disease which is unlike that met with anywhere else. "Malta," "Roman" and "Cyprus" fevers behave differently, closely as they are allied geographically. How much more are differences to be expected in the area of China.

This is preliminary really to the statement I now make as to the appearance of influenza in Hongkong. On talking with a doctor of 25 years' experience in Hongkong and Macao concerning influenza, he said that it was "nothing new here," that he had many times seen the disease before—in fact, that he was not aware that a year passed without his having known cases. He was content to classify them as a "form of dengue." However, when the disease came to be classified as influenza, he was surprised at the new name, but readily styled it influenza to be in harmony with others, but not because it was of a different type to what prevailed before. At times during the last 25 years it has become epidemic, as in 1888 and 1890, but that it has been present in Hongkong and Macao in sporadic forms, and at times in prevalent forms, he is convinced.

My experience of five years fully corroborates every word as above stated. In 1887 fever to such an extent prevailed in Hongkong that the Government appointed a Commission to inquire into it. A different type prevailed in 1888, and in each successive year the type of fever has varied from its predecessor. I am not aware that such is the case elsewhere than in China. The "fever" of a place is generally well marked, and the treatment by the people a matter of daily life. But not so in South China. Fevers have no type here; they are polymorphous.

Certain it is we have many forms, certain also that we have malarial fever to deal with, and admitted it must be that we have occasionally prevalent, and sporadically always present, a disease which is allied to "dengue fever" but which resembles influenza as we now know it. Influenza is combatted by the usual malarial remedies, and it is fair therefore to assume that a malarial element may be present.

No disease is known to assume so many forms as influenza. A disease that can give rise, either primarily or secondarily, to fever, pains of an excruciating nature resembling dengue only, headaches at times considered as neuralgia, lumbago, rheumatic pains in limbs, skin eruptions, jaundice, diabetes, diarrhœa, peripheral neuritis, Bright's disease, pneumonia, paralysis of individual muscles, aphasia, spinal meningitis, cerebral lesions of many kinds, and numerous other affections is a type which cannot be neglected during any illness within the last three years.

The forms of malarial fevers in China are almost as varied and variable as are those of influenza, and amongst the number it behoves us to note whether Mr. ROE'S contention, "that influenza is endemic in China," is correct or not. I have stated the argument fully, so that there may be no doubt of my meaning, and have done what I can to attract discussion by adopting Mr. ROE'S views. No communication has been sent to the medical journals from China on the existence of influenza, except from Hongkong, and this makes one all the more interested in the matter. Every corner of the earth has reported the disease except China.

What does this mean—the non-existence of the disease? Not so; even the Chinese recognise its presence, and have specially devised medicines to cope with it. Is it that the disease is constantly present with us in some form, and complicates ordinary malarial fever? The latter would explain the tardiness of the foreign medical practitioners in China to admit the disease.

The position of the renunciants of influenza is as follows:—Has there been influenza in China?—No. Has all the rest of the world had it?—Yes. How do you explain its absence from China? ———.

The answer from Mr. ROE'S standpoint is that "you have it always with you and it complicates your diseases to such an extent that a slight increase in its prevalence does not strike one as exceptional as in other parts of the world, and merely goes by the name of 'fever,' without the qualifying word even of malaria."

Thus I have taken upon myself to invite discussion on this subject from the only source where Mr. ROE'S statement can be answered scientifically. The matter must be discussed with an unbiassed clinical mind. Neither the absence nor presence of "bronchial catarrh," nor a "rash," the most evanescent, unreliable and variable of all the accompaniments of influenza, is to determine the matter.

These warnings I would specially repeat, as such signs and symptoms are those readily seized upon by the superficial observer as the means of diagnosis. Finally, I have to record that the same disease I recorded in 1888, but could not name, is here in Hongkong now—September 1891; and should I venture to prophesy, I should say that influenza has not yet completed its travels, and that its presence here now will be followed by its appearance in more westerly countries.

Failing the fulfilment of the prophecy, it is a proof that we have but to observe and we shall find that the disease is endemic in China and that Mr. ROE'S theory is so far correct.

As I forward this paper influenza has again appeared in Moscow.

[The Berlin Hygienic Bureau has published the following facts relating to the influenza epidemic of 1889–90:—

Influenza in epidemic form was recognised in June 1889 in Turkestan and reached Eastern Russia (Kiakhta) in the middle of October. On the 28th October it broke out in Western Siberia and advanced eastward, reaching Japan in January and Hongkong in February 1890. Its course westward was more rapid. Moscow was attacked in November 1889, and St. Petersburg a fortnight after Moscow. The capitals of Sweden, Denmark, Germany, Austria, France and England were reached by the end of November or beginning of December, while Buda-Pesth, Brussels and Madrid were not invaded before the middle of December. On the 19th December it reached New York, and showed itself at the end of the same month in Milan, Rome, Naples, Constantinople, Canada, Morocco and in several States of the American Union. By the middle of January 1890 influenza was raging at Turin, in Algeria and in Egypt. A fortnight later it broke out in Central and South America. Eastern Africa was not attacked before the end of March, but Bombay was attacked by mid-February.]

DR. ALEXANDER JAMIESON'S REPORT ON THE HEALTH OF SHANGHAI

For the Half-year ended 30th September 1891.

THE half-year just closed may be divided into two periods—one of unusual drought, the other of unusual humidity. The former would comprise the months from April to July; the latter, August and September. In April there were a few groups of a couple of days each during which showers fell; in May the total rainfall was 1⅛ inch; in June there was but one heavy downpour, the rainfall for the month being less than one-third of the average; in July there were but seven rainy days. On the other hand, more than double the average amount of rain fell in August, while September was marked by brief torrents, which, though separated by perfectly dry intervals, brought the total amount registered to 10 inches.

The atmosphere was in almost constant disturbance. April and the first week of May were very stormy, with frequent growling of distant thunder. After a heavy dust-storm on the 5th May the weather was relatively calm round Shanghai itself, where we had but little share in the storms on the coast. The same may be said of June, in which month there was but one tempest. This burst over the Settlements on the 23rd, which was the hottest day of the month. The great triple typhoon of the 18th July will long be remembered. It had been preceded and was followed by violent storms on the coast, which prevailed up to the end of September; but although August was tempestuous, no great disturbance reached Shanghai except the typhoon of the 1st and 2nd September, which was accompanied by a remarkable, though temporary, fall of temperature. As regards heat, the summer months were by no means exhausting, the temperature having no doubt been kept down by the rapid circulation of great masses of air evidenced by the storms which prevailed all along the coasts of Japan and China. April, May and the first half of June were mild and equable, with an occasional hot day. The maximum for April was 83° F. (11th), the minimum, 39° (8th). The mean for May was 68°, the difference between the maximum and minimum daily mean having been only 19°. The maximum registered in May was 89° (10th), the minimum, 47° (17th). The latter half of June was hot but variable, and this period was followed by a cool first week in July, so that summer, in the sense of persistent hot weather, did not begin until about the 10th July. The highest temperature registered in June was 96° (23rd), the lowest was 60° (4th). The maximum for July was 97° (24th), the minimum, 69° (4th). The first half of August was oppressive, but mild weather began on the 16th, and after that date the day temperature was moderate. The nights, however, continued hot until the middle of September, and this rendered the season much more exhausting than would be anticipated from a perusal of the temperature registers. The maximum recorded for August was 96° (12th), the minimum, 70° (22nd); the maximum for September was 86°.5 (7th), the minimum, 56° (30th). In general terms, the summer months were cool, dry and windy.

DEATHS of FOREIGNERS from 1st January to 30th September 1891.

CAUSE OF DEATH.	JAN.	FEB.	MARCH.	APRIL.	MAY.	JUNE.	JULY.	AUGUST.	SEPT.	TOTAL.
Small-pox	1 1*	1*	...	...	...	...	...	...	...	3
Typhus fever	...	1*	...	...	...	...	...	...	...	1
Enteric fever	...	1†	...	...	...	1	1	...	...	3
Diphtheria	1†	...	1†	...	...	1†	...	...	...	3
Whooping-cough	...	...	...	...	...	...	...	1†	...	1
Tuberculosis	1	...	...	...	...	...	1	...	...	2
Phthisis	3*	...	...	...	1*	1	1*	...	...	6
Cancer	...	...	...	...	...	...	...	1	...	1
Bright's disease	...	...	...	1	1*	...	1	...	1	4
Cholera	...	...	...	...	...	...	...	4 2* 4†	3 5*	18
Meningitis	1†	...	...	1†	1†	...	1†	...	3†	7
Apoplexy	1	1	...	...	...	...	1	...	...	3
Heat apoplexy	...	...	...	...	...	...	2	...	...	2
Convulsions	1†	...	...	...	...	...	...	...	1†	2
Epilepsy	...	...	...	...	...	...	...	...	1	1
Melancholia	...	...	...	...	...	...	...	...	1	1
Alcoholism	...	...	...	1	...	...	...	...	...	1
Heart disease	...	...	...	1	...	...	...	...	...	1
Laryngitis	...	1†	...	...	...	...	...	...	...	1
Bronchitis	...	1†	...	...	...	...	...	...	...	1
Pneumonia	2*	...	1*	...	...	...	...	...	...	3
Peritonitis	...	1†	...	...	...	...	...	...	...	1
Dyspepsia	...	1†	...	...	...	...	...	...	...	1
Diarrhœa	1	...	...	1	...	...	1†	1 1†	1	6
Dysentery	...	...	...	...	...	1*	...	1	...	2
Obstruction of bowels	...	...	...	...	...	...	...	...	1†	1
Hepatitis	...	...	...	...	...	...	...	1	1*	2
Abscess of liver	...	...	...	...	1	...	...	1	...	2
Pyonephritis	...	...	...	...	...	1	...	...	...	1
Albuminuria of pregnancy	...	...	...	...	...	1*	...	...	...	1
Puerperal fever	...	...	...	...	...	...	1	...	...	1
Umbilical hæmorrhage	1†	...	...	...	...	...	...	...	...	1
General debility	...	1†	...	...	...	...	...	...	...	1
Asphyxia	...	...	...	...	...	1	...	...	...	1
Poisoning	...	...	...	...	...	...	...	...	1*	1
Gunshot wound	...	1	...	...	...	...	...	...	...	1
Suicide	...	1	...	...	1	...	...	...	...	2
Drowning	...	...	...	...	1*	1*	1†	1*	...	4
Not certified	...	...	...	...	...	...	1	1*	1*	3
TOTAL	14	11	2	5	6	8	12	19	20	97

* *Not resident adults (28).* † *Infants (28).*

Two adults died from enteric fever, but, judging by my own experience, I am of opinion that the disease was neither severe nor widespread. On the other hand, malarial fevers and vague disorders, yielding readily to quinine, were extremely prevalent. That ill-defined affection "influenza" was common enough, the diagnosis in my practice being usually made and insisted upon by the sufferers themselves. A cholera case occurred in a foreigner as early as May, and the last death among foreigners from this cause for the year was recorded in November. The disease raged among the Chinese, and, there can be no doubt, is now endemic in Shanghai. Only one death is attributed to dysentery, although that affection in a moderately severe form and ordinary diarrhœa were constantly under observation, especially in July, August and September. Three deaths were due to inflammatory conditions of the liver; of these, two occurred among residents. A few cases of varicella occurred among children. Pertussis was

epidemic among the Chinese from May to July at least, during which months I saw a very large number of cases in native children living in widely separated parts of the Settlements. Foreign children suffered here and there from the disease, but among them there was nothing resembling an epidemic. Bronchitis and catarrhal throat affections were common, in spite of the dryness of the season. Phthisis accounts for one death among residents. It is still true, as has often been noted in these Reports, that almost all cases of phthisis are imported. Many cases of chronic alcoholism, and of the acute form necessitating confinement, were treated in hospital and in private. One death only is attributed to alcoholism during the period under review, but it cannot be doubted that excess in drinking largely increases the "morbidity" of the place and thus, indirectly, its mortality.

A most distressing and, indeed, appalling, group of events occurred during the cholera season of this year, by which a lady and her three children perished within two days.

The family in question, consisting of husband, wife and three children, lived in a well-built, airy house in a good situation. The house was kept scrupulously clean, and all ordinary precautions as to boiling drinking water, cleansing vegetables, and so forth, were matters of daily routine frequently, if not regularly, supervised.

Up to noon on the 2nd September the entire family was apparently well. At 2 P.M. a child, aged 2, was suddenly seized with vomiting and griping, followed by clear, watery stools containing green lumps (these lumps proved to be pieces of Chinese beans with which his amah had fed him during the forenoon), urgent thirst, cold surface covered with sweat, and collapse. The application of external heat, energetic friction and the administration of stimulants were kept up for 24 hours without any marked change in the condition. Then two convulsions, of short duration and unaccompanied by loss of consciousness, occurred. After these the surface became fairly warm, and the pulse, which from the beginning had been hardly perceptible, was noted as "100, soft and full." Next day vomiting had ceased, a little urine was evacuated for the first time, the stools (five in 24 hours) were large, watery, and still contained fragments of macerated beans. The surface had, however, again become cold, and no devices for restoring heat to it were of any avail. On the fourth day there was constant flow of serous fluid from the bowel; convulsive movements of limbs; teeth-grinding. Insensibility came on at 6 A.M., general convulsions four hours later, with death shortly after, 70 hours from the beginning of the illness.

On this day (5th September) the father was seized with a sharp attack of dysentery, which was treated by dieting and castor oil and laudanum, and lasted about a week. He was assiduous in his attendance on his family; but notwithstanding this, and in spite of the irritation of at least a certain portion of his intestinal tract, he did not at any time present any choleraic symptom. During the forenoon of the 6th September a second child, 1 year old, began to vomit and purge. Collapse came on rapidly, and he died in the evening. On the same day the third child, twin brother of the first, was in apparent health up to 4 P.M., when he returned from a tea party. All the other children at this party remained well. Immediately on getting home he vomited, and incessant serous purging set in at once. Three hours after the beginning of the attack he was pulseless, with cold, wet, cyanosed surface, excavated eyes, urgent thirst, extreme restlessness, hoarse cry and panting respiration. At 10 P.M. he became insensible, and died at 11 P.M. There were no convulsions.

While attending to this child, at 7 P.M. on the 6th September, the mother found herself suddenly drenched in perspiration, and violent purging set in at the same moment. She was seen a few minutes later, and was already cold. The diarrhœa was bilious up to midnight, when it became characteristically choleraic and involuntary. Vomiting was urgent up to 10.15 P.M. ($3\frac{1}{4}$ hours), when it stopped, and did not recur. There was a very brief and short attack of cramp in the calf muscles at 11 P.M. The skin all over the body was now livid; the pulse disappeared, and respiration, which had at first been comparatively little affected,

became shallow and rapid. Uncontrollable restlessness with apparent unconsciousness, broken occasionally by a short sudden cry, and a continuous flow of serous fluid from the bowel so that the bed was saturated, marked the last two hours of life. The patient died at 2.30 A.M. on the 7th September, 10½ hours from the commencement of the attack.

A case of Aphasia lately under treatment presents certain points of interest.

Three years ago a European male, aged 72, who had spent most of his life in China, and had always been remarkably healthy up to the age of 71, suddenly became aphasic. He had been in the habit of walking 5 or 6 miles daily until he was well past 70. Then he occasionally complained of sciatica and of hæmorrhoids, but he continued his daily exercise with but little diminution. He was not gouty. He had lately had much business anxiety. A medical man who saw him for some trivial ailment six months before the attack to be described noted that his pulse was "very strong, hammering." He had suffered recently from bronchitis with profuse expectoration. He had always been temperate in eating and drinking, and although his appetite was excellent and he took abundant nourishment, he had for some years, solely in consequence of bad teeth, lived chiefly on milk and soups, puddings and fish. He was in the habit of reading a great deal, chiefly the newspapers, and he took considerable interest in current events, social, political and commercial.

1st day.—He was known to have been apparently in his usual health at 5.30 P.M. A friend, who saw him two hours later, found him speechless, but understanding spoken and written words, and able to reply intelligently by signs to spoken or written questions. Whether he could write was not then ascertained. There was no paralysis of the limbs. He walked upstairs to bed, and with some assistance undressed himself. He then ate some dinner without any difficulty in deglutition. Complete control of sphincters. His pulse was said to be very soft and feeble. I saw him at 10 P.M., when he was lying on his left side in bed, sleeping quietly and breathing regularly, but with a slight snore and occasional puffing of the lips. I did not disturb him, but ordered ½-ounce doses of hazeline every three hours.

2nd day.—Had slept well. Found patient walking about his room. The left corner of his mouth was drawn a little upwards and outwards. When a pencil was put into his right hand he let it drop, either because he had lost recollection of its use or because he had lost the finer sensibility of his fingers. He moved his right arm freely, but the grip of his right hand was weakened; still he could take up whatever he required. He did not appear to understand either speech, writing or signs, and his hearing was dull. He was evidently neither surprised nor distressed by his inability to speak. He masticated and swallowed well. This morning he made signs to his servant, by fumbling at his pyjamas, that he wanted to urinate. Temperature 98°. The urine was in every respect normal.

3rd day.—Passing urine involuntarily. Bladder empty. The dragging of the mouth was more marked and the hand weaker. A good deal of his food was now running over his lower lip. In the evening he for the first time smiled and nodded a salutation.

4th day.—For the first time showed distress, or rather annoyance, at his inability to speak. The mouth was hardly distorted. The right hand was stronger; he was able to grasp with considerable force, but he used his left hand by preference for arranging his clothes, etc. When asked to put out his tongue he attempted to comply, but did not succeed. He had passed urine once or twice voluntarily.

5th day.—One involuntary stool, but no involuntary micturition. Mouth perfectly straight. When asked to protrude his tongue he got the tip of it just between his teeth, but could not advance it farther. There was no escape of food from corner of mouth. He had an excellent grip with the right hand, feeding himself with it. He obviously understood simple signs, but I could not get him to grasp the dynamometer.

6th day.—Lip movements perfect, but no attempt at speech made. When offered a newspaper, book, or paper and pencil he showed neither pleasure nor annoyance, but simply pushed them aside as though he had no idea of their use. Urination voluntary. He feeds himself with a spoon.

8th day.—Began to try to speak. Says "yes" and "no," but indistinctly. Could not protrude tongue.

10th day.—Recollected the use of pencil and paper. When a written question was placed before him he took the pencil as if to reply to it, made a scrawl, and seemed satisfied that he had replied. He did not attempt to reply by signs to simple written questions, which, in fact, he clearly did not understand.

14th day.—He understood simple spoken questions, such as "Have you had tiffin?" In answer to this he shook his head in decided negative. But when, after feeling his pulse at the right wrist, I said "Give me your left hand now," he looked blankly round, and then made a sign with his right hand, conveying that he did not understand.

17th day.—Up to this day he had been quite amiable, but now there was a sudden change of temper. He continued gentle and polite to his servants, but when visitors approached he made gestures to prevent their coming, and if they persisted he rose from his chair with a grunt of annoyance and went to another part of his room.

Incontinence of fæces, but not of urine, now set in and lasted for several months, when it disappeared. Three months after his attack his general health was perfectly good, and he had grown very stout. Got out a word occasionally, such as "yes," "no," "good-bye" (imperfectly), but could neither write nor understand writing. Understood any simple spoken question and replied by appropriate signs. All paralysis had completely disappeared.

Two years later there was no change, except that he showed an extraordinary memory for faces seen before his illness, and for names.

Thirty-two months after his attack, he being then 75, I saw the patient again. When asked to come in to see me he presented himself with a bronzed, ruddy complexion, walking rapidly and firmly into the room. He at once recognised me, and shook hands, giving me a grip which made my fingers tingle. He understood the questions which I asked him—as to his appetite, sleep, liking of his surroundings, etc.,—and answered without hesitation by appropriate gestures and by attempts at speech, which, however, did not get beyond "oh yes," "no" and "very well," the last indistinct. After a while he rose from his chair, shook hands again, and left the room with gestures of farewell.

He is still unable to speak or to write (aphasia and agraphia); he does not understand written words (word blindness), but he recognises any previously familiar object presented to him and correctly indicates its use; he also recognises the meaning of spoken names applied to objects, at least up to wide limits (absence of word deafness); he never makes any attempt at reading or looking at pictures. Meanwhile his nutrition is perfect; he sleeps like an infant; takes, for a man of his age, an extraordinary amount of walking exercise; and has complete command over both bladder and bowel. He never betrays the slightest surprise or distress at his condition.

II.—SPECIAL SERIES.